1989
ANNUAL REPORT

Environment Council of Alberta

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Alberta
ENVIRONMENT COUNCIL OF ALBERTA

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Environment Council of Alberta

February 1990

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ECA 90-AR

LETTER OF TRANSMITTAL

Lieutenant-Governor in Council
Legislative Building
Edmonton, Alberta

Honorable Ralph Klein
Minister, Department of Environment
420 Legislative Building
Edmonton, Alberta

Sirs:

We are pleased to submit to you the Annual Report for the Environment Council of Alberta for the year 1989, as required by Section 7(1)(h)(i) of The Environment Council Act.

Respectfully submitted,

Archie Landals
Director, Liaison
Environment Council of Alberta

Dave Buchwald
Director, Research
Environment Council of Alberta

Al Giacomazzi
Director, Administration
Environment Council of Alberta

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1. POLICY AND PROGRAM REVIEW

1.1 ALBERTA CONSERVATION STRATEGY

Continuing growth of the Alberta Conservation Strategy (ACS) project in 1989 involved staff in preparing, editing, and distributing background papers. ECA staff liaised with various government and non-government agencies and conducted speaking engagements on the ACS, sustainable development, and action that individuals can take to help the environment. By the end of 1989, five more sector discussion papers had been published, and several others were in various stages of editing. Those published in 1989 were:

Foundations for the Future: Alberta's Mineral Resources

EE2000: Environmental Education for a Sustainable Future

Oil and Gas in Alberta: An Uncertain Future

A Place for Wildlife

Healthy Planet, Healthy People

Two other major draft documents, intended for public discussion, were completed by ECA staff in 1989. These include the *Alberta Conservation Strategy: Framework for Action;* and the *Alberta Conservation Strategy: Strategic Framework in Brief.*

A third, companion document, is in the final stages of editing. It is titled *Alberta Conservation Strategy: Approaches to Implementation.*

In response to the growing number of requests for speakers to discuss the Alberta Conservation Strategy and what people can do for the environment, Council staff assisted in the preparation of speaking notes to accompany a slide show on the conservation strategy project. This has been well-received both by speakers and audiences.

The University of Alberta's Faculty of Extension staff received help from the ECA in developing proposals for possible course materials on sustainable development and conservation strategies. Liaison is expected to continue as the course material proposals are refined.

1.2 CLIMATE CHANGE REPORT

ECA staff have a report under way on Climate Change. This paper is being created in response to a growing public concern about climate change and the need for broad, general information about aspects of climate change that relate to Alberta. It is hoped that the quality of public discussion on climate change control strategies will be enhanced by the preparation and release of this report.

2. PUBLIC HEARINGS

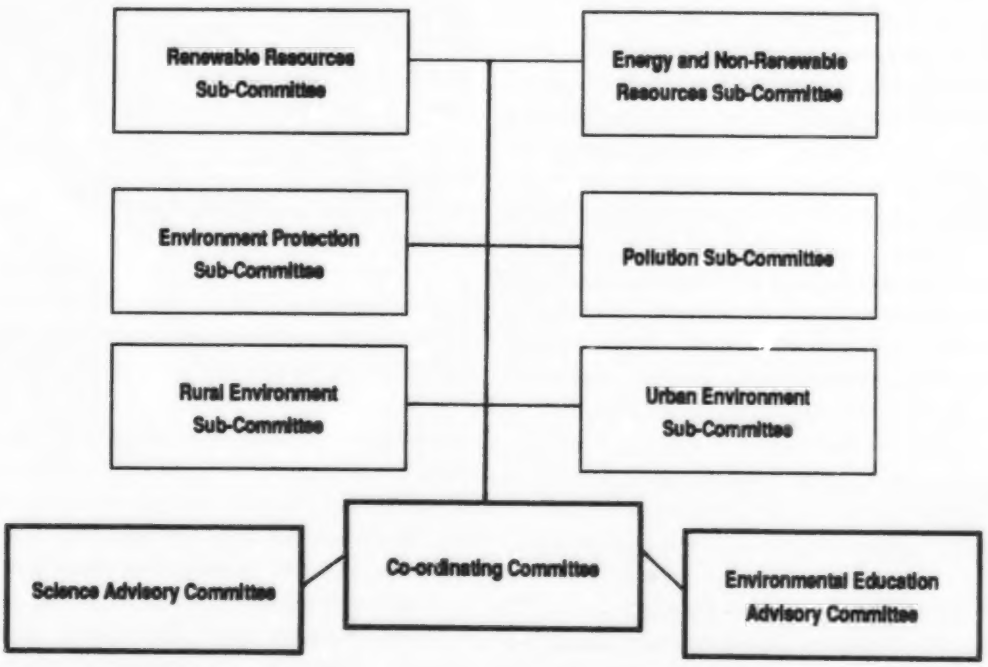
No public hearings were held during 1989.

3. PUBLIC ADVISORY COMMITTEES

The Public Advisory Committees are the volunteer arm of the Environment Council and serve as a major interface between the Government of Alberta and its citizens with regard to environmental matters. The Public Advisory Committees represent the broadest possible cross section of non-governmental organizations with an interest in the environment, including chambers of commerce, academics, and industrial associations, as well as natural history groups. The Public Advisory Committees identify and consider emergent environmental issues and problems; they serve as an early warning system, express public concern, and provide advice to government. Public input into the government decision-making process ensures a high degree of credibility and public confidence in government programs and policies. The effective communication networks of the member organizations of the advisory committees are an important mechanism used to enhance the general public's awareness of government initiatives.

The operating guidelines of the Public Advisory Committees to the Environment Council of Alberta are contained in the *Roles Document*, which, in consultation with the Minister, was revised and updated in September, 1987.

3.1 ORGANIZATION OF THE PUBLIC ADVISORY COMMITTEES



3.2 MEMBERSHIP

The **Public Environmental Advisory Committee** is made up of affiliated and unaffiliated members. Affiliated members are nominees of various organizations, associations, and institutions. These groups have a demonstrated interest in the environment, represent a significant constituency, and are reasonably provincial in scope. Unaffiliated members are individuals whose special capabilities are recognized by the Environment Council to be of exceptional value. They are usually long-term Public Advisory Committee members who no longer represent a specific group. The current roster stands as follows:

135 member organizations
116 representatives currently appointed
35 alternate members
20 unaffiliated members

The **Environmental Education Advisory Committee** is composed of professional educators and communicators from government, broadcasting and related industries, academic institutions, the teaching profession, and the public at large. Currently, this Committee has 16 members.

The **Science Advisory Committee** is a multidisciplinary group, composed of scientists drawn from academic institutions, government, scientific agencies, and industry. There are 17 formally appointed members at this time.

As of the end of the year, 204 dedicated citizens were formally appointed to the Public Advisory Committees, an increase of 7 since the end of last year. The individuals who serve on the various committees and sub-committees are listed in the respective chairman's report, and in Appendix A.

3.3 CHAIRMEN'S REPORTS

3.3.1 CO-ORDINATING COMMITTEE

> ...responsible for the overall co-ordination and efficient functioning of the three Public Advisory Committees.

Report from the Chairman — Dr. Lochan Bakshi

A recent poll has shown that 95 percent of Canadians are concerned about the environment. This concern is reflected at various political levels so that environment politics are making headlines as never before. Environment is now usually at the top of the agenda of politicians, including the national leaders like Mulroney, Bush and Gorbachev.

I am, of course, delighted by this. After all, we do need clean air, clean water, and healthy food to survive. Toward this end, the various Sub-Committees of PAC, together with EEAC and SAC did their part admirably in helping the Steering Committee to prepare the Alberta Conservation Strategy. The report is now complete. In bringing it to fruition, every member of the Steering Committee put in countless hours of dedicated work. On behalf of all members of the Advisory Committees, and on my own behalf, I extend warmest thanks and congratulations to each member of the Steering Committee and especially to Chairperson, Dr. Joan Snyder.

It may interest you to know that in October, I presented a paper at the Third International Conference on Environmental Education held in Goa, India. My presentation outlined how we went about the task of preparing a conservation strategy for our province. The presentation was warmly received and a number of delegates have asked for a copy of the report.

A replacement for Alistair is literally just around the corner. The Honorable Ralph Klein will introduce the new Chief Executive Officer to us and the rest of the world at our Annual Joint meeting. Like you, I am looking forward to this special event and, like you, I pledge my support to him/her to work toward a better environment for Alberta.

We had only a few Co-ordinating Committee meetings in 1989. I therefore attended a number of meetings of our Sub-Committees. I regret that I was unable to visit all of them, but I am glad I attended those that I did because I learnt a great deal from them.

Last week, I presented, on your behalf, a brief at the public hearings of the Alberta-Pacific Environment Review Board. I expressed a number of concerns based on your experiences and mine. I ended my presentation with this thought: forests precede civilizations but deserts follow them.

Thanks to you, I have greatly enjoyed this past year and am looking forward to the next when I will be assisting my successor. I extend my warm good wishes to the new Co-ordinating Committee Chairperson, Joan Snyder in the task facing her in 1990.

Dr. Lochan Bakshi
Chairman
Co-ordinating Committee

Members of the Co-ordinating Committee

Dr. L. Bakshi	— Chairman
Dr. J. Snyder	— Vice-Chairperson
Mrs. J. Sloan	— Past Chairperson

Sub-Committee Chairpersons

Mr. G. Stewart	— Energy and Non-Renewable Resources
Dr. M. Muc	— Environment Protection
Dr. P. Ramalingam	— Pollution
Mrs. M. Posey	— Renewable Resources
Dr. J.C. Wood	— Rural Environment
Mr. K. Blom	— Urban Environment
Dr. A.A. Einsiedel, Jr.	— Environmental Education Advisory Committee
Dr. S. Dalton	— Science Advisory Committee

3.3.2 PUBLIC ENVIRONMENTAL ADVISORY COMMITTEE

...acts as a barometer of public opinion and concern on environmental issues. As an environmental advocate it provides ongoing advice to the Environment Council and government departments on emerging issues as well as feedback on various programs and policies. Communication networks help to enhance general public understanding of government initiatives.

3.3.2.1 Energy And Non-Renewable Resources Sub-Committee

Report from the Chairman — Mr. George Stewart

The six meetings of the Sub-Committee in 1989 dealt with various aspects of the greenhouse effect. In October, the media, which has been very active in addressing these concerns, reported a disappointing development — that the goal of 20 percent reduction in CO_2 emissions by 2005 previously endorsed by the federal government has now been deferred. No alternate goal was announced — only that any proposed steps to reduce CO_2 emissions must be "do-able" (Jake Epp). We have suggested in a letter to Mr. Epp (and to Alberta's Energy Minister, Hon. R. Orman) that certain steps (for example, energy conservation encouragement) can be undertaken immediately without the benefit of long-term research on the subject. We await an answer to our suggestion.

Our October 27 meeting heard Mr. Peter Dickie of Shell Canada describe the activities of the "upstream" industry in determining its position relative to the greenhouse effect. Mr. Dickie welcomed the Sub-Committee's input and the Sub-Committee in turn expressed satisfaction with his presentation and with the industry's initial plans. The Sub-Committee plans to continue concentrating on the greenhouse effect in the new year and will ask Mr. Dickie to update us on his Task Force's progress later in the year.

The Sub-Committee was active in reviewing Alberta Conservation Strategy sectoral papers prepared under its jurisdiction. *Foundations for the Future: Alberta's Mineral Resources* and *Oil and Gas in Alberta: An Uncertain Future* have been published. Papers on coal and electricity are scheduled for release early in the new year.

We have reviewed the Canadian Petroleum Association's studies on the adequacy of off-shore and on-shore oil spill clean up capability. The Sub-Committee's concerns were aroused following major spills at Pittsburgh, Pennsylvania (on-shore) and Valdez, Alaska (off-shore). We intend to further

review the Canadian Petroleum Association's study results in the new year.

Dr. Bill Ross reported on his attendance at the September World Energy Conference in Montreal. Although the theme of the conference was listed as Energy for Tomorrow, the real theme proved to be Energy and the Environment (especially the greenhouse effect). The conference identified means of reducing CO_2 emissions in the near term, energy efficiency improvements (conservation), and shifts to cleaner versions of fossil fuels (clean coal technology, natural gas). Interestingly, a large number of delegates believed nuclear power (using improved technology) may be part of the solution to the greenhouse effect. A major problem remains — the role of the undeveloped countries and increased generation of "greenhouse" gases in future.

The Sub-Committee looks forward to the challenges of the coming year in exploring the greenhouse effect and encouraging mitigative measures.

We were encouraged by the expanded interest in the environment displayed in a number of areas in the past year — new rules for the National Energy Board, Energy Resources Conservation Board annual report (environmental in emphasis), the oil industry's *Roughneck* magazine — even an announcement of environmental concern from Oil Producing and Exporting Countries (OPEC).

Mr. George Stewart
Chairman
Energy and Non-Renewable Resources Sub-Committee

Members of the Energy and Non-Renewable Resources Sub-Committee

Chairman

Mr. G. Stewart	— Unaffiliated
Mr. D. Broughton*	— Unaffiliated
Mr. R. Davidson	— City of Airdrie
Dr. R. Gehrke	— College of Chiropractors of Alberta
Mrs. H. Heacock	— Calgary Local Council of Women
Mr. J. Hirsch	— City of Medicine Hat
Ms. J. Hodgson	— Calgary Chamber of Commerce
Mrs. B. Hunter	— Consumers' Association of Canada
Dr. P. Lewis	— University of Lethbridge
Mr. P. Lulman	— Coal Association of Canada
Mr. D. Moffat	— Alberta Federation of Labour
Mr. J. Ostrowski	— Alberta Association for the Environmentally Hypersensitive
	— The Sustainable Agriculture Association
Mrs. A. Parkinson	— Community Planning Association of Alberta
Mrs. E. Paschen	— Unaffiliated
Mr. G. Paschen	— Archaeological Society of Alberta
Mr. B. Peel	— Electric Utility Planning Council
Mr. D. Porter*	— Canadian Petroleum Association
Dr. J.E. Rapson	— Solar Energy Society (Calgary Chapter)
Dr. W.A. Ross	— University of Calgary
Mr. J.E. Staples	— Association of Professional Engineers, Geologists and Geophysicists of Alberta
Mr. B. Staszenski	— Save Tomorrow Oppose Pollution (STOP)
Mrs. M. Stephenson	— Alberta School Trustees Association
Mr. J. Swiss	— Canadian Petroleum Association

* No longer on Sub-Committee

EEAC Liaison — Mr. W.P. Batycky

SAC Liaison — Dr. D. Kvill/Dr. P. Mahaffy (Alternate)

3.3.2.2 Environment Protection Sub-Committee

...preservation of native species and natural environments for their intrinsic values, as well as the conservation of these resources for outdoor recreation and tourism.

Report from the Chairperson — Dr. Michael Muc

This past year, the Sub-Committee devoted considerable time, attention, and effort to the impact of economic developments on various environmental resources. Our efforts focused on:

1) Sunshine Village Expansion

Letters were sent to the federal Minister of Environment and the provincial Ministers of Environment, Tourism, and Recreation and Parks, detailing our concern about further expansion at the Sunshine facility. The project was postponed after the corporation withdrew its proposal. The government has indicated that it will apply detailed environmental assessment and review to any future expansion proposals.

2) Big Lake Development

Letters were sent to the Ministers of Environment, Forestry, Lands and Wildlife, the Cities of Edmonton and St. Alberta, as well as the County of Parkland, indicating a need to maintain and protect the wetland habitats around Big Lake. We also encouraged the Environmental Education Advisory Committee to evaluate the potential environmental education value of the area. A proposed golf course development was turned down after our Sub-Committee expressed concerns about its impact on the lake's shoreline habitat. We will continue to monitor any future developments and to support environmentally-appropriate developments for the lakeshore.

3) Nestow Landfill Site

Our efforts toward a negotiated settlement between a concerned citizen (Mr. Robert Gouin) and the Municipal District of Westlock, regarding an exposed landfill site, resulted in a fence being constructed around the site and Westlock's intent to relocate the landfill site in the near future.

4) Banff Townsite Development

The Superintendent of Banff National Park (Mr. Dave Day) provided us with an overview of potential townsite developments. We will monitor future development proposals and provide input as necessary.

5) Highway Through Wagner Natural Area

Letters were sent to the Premier, and Ministers of Transportation, Environment, and Forestry, Lands and Wildlife, expressing concerns about a proposed road which would impact on Wagner Natural Area. The Minister of Transport has initiated an Environmental Impact Assessment Committee to review the proposed development. We will take further action once its recommendations are known.

6) Pulp Mills in Northern Alberta

Our focus has been on pulp mill development and its long-term operational impacts on forest and aquatic environments. Letters of concern were sent to the federal Minister of Environment, the provincial Ministers of Environment, Forestry, Lands and Wildlife, as well as specific forestry companies. Questions were expressed about regulations and controls required for environmental protection, monitoring of mill operations, and their potential environmental effects. The provincial government will be investigating the feasibility of long-term monitoring studies and has consented to extend its public hearings on pulp mill development to Edmonton. We will continue to monitor and react to issues arising from these developments. Dr. Robert Holmberg has provided considerable expertise and information on this topic.

7) Oldman River Dam

The Minister of Environment was made aware of our concerns regarding potential habitat loss and negative impacts associated with the dam's operation on floral and faunal species. The government is proposing substantial mitigation studies on the dam's impact and will include appropriate management considerations to further monitor and minimize associated impacts.

8) Howse Pass

A letter was sent to the federal Minister of Environment indicating our concern about increased transport route development through Banff National Park. We were informed that the project appears unnecessary, excessively costly, and will not be considered at this time.

9) Helitouring

We considered the stresses on wildlife in national parks associated with low-flying airplanes and helicopters. Mr. Ted Code has co-ordinated information on this issue and we expressed our concerns to the federal Minister of Transport. Once further details are available, we plan to make a more concrete statement to the Minister.

10) Logging in Cypress Hills Provincial Park

Dr. Bob Scace's review of the issue suggested that the small-scale logging being practiced is acceptable and necessary from a resource management perspective and has slight impact on the park's ecosystem.

11) Lacombe Expansion

Red Deer Regional Planning Commission was notified of our concerns that the potential expansion plans of the Town of Lacombe may have a negative impact on wetland habitats surrounding Mud and Elizabeth Lakes. We are monitoring the Town's proposed developments and providing local citizens support in their efforts to protect these important habitats. Lacombe Town Council has recently decided against the proposed expansion plans.

12) Kananaskis Pack Goat Use

The Minister of Forestry, Lands and Wildlife was informed about our reservations (disease vectors, habitat destruction) regarding the use of domestic goats as pack animals in natural areas. We were informed that the practice will be reviewed at the end of the year and that such concerns will be addressed accordingly.

13) Road Development at Lily Lake

A letter was sent to the Minister of Transport expressing our concerns about the environmental impact of road development through Lily Lake. We requested a thorough environmental impact assessment of the proposal and will respond to continuing developments.

The Sub-Committee has also been actively involved in providing support and expertise to local citizen groups and government projects pursuing environmental issues of a specific nature. These include:

1) Kimiwan Lake

We have had extensive correspondence with the former MLA for the area (Mr. Marvin Moore) and written letters to the Premier and Ministers of Environment and Forestry, Lands and Wildlife. We also provided moral support to the local Kimiwan Lake citizens group and to Ducks Unlimited, both of which have been requesting higher lake water levels. The government indicated that it was willing to work at raising the water level to 618.85 meters and that an additional water-level evaluation will be made after this objective has been reached. The Sub-Committee's support is for a water level which will maximize waterfowl breeding habitat along the lakeshore. We will continue to monitor developments and respond accordingly. Mr. Brett Calverley has provided considerable insight and input into our efforts on this issue.

2) Excessive Road Kills (Bow Corridor)

We have encouraged the government to develop a study of large animal movement in the Bow Corridor area, with the objective of reducing animal/motor vehicle accidents. We provided a letter of support for the provincial wildlife biologist (Mr. T. Nett) who is attempting to obtain long-term funding for the project. The Chairman also helped review the project's research proposal.

3) Ecological Reserves

Mr. Horst Fauser has spent considerable time reporting on the government's efforts in developing ecological reserves in the province and assisted greatly in developing our Sub-Committee's support of such initiatives. The government has indicated a long-term commitment to bringing more sites to such a classification status and we will continue to evaluate suitable sites.

4) Castle River Access Management

Our Sub-Committee serves in an advisory capacity on a provincial government study group developing a management plan for access routes into the Castle River area. We have been kept up to date on the study

group's progress and one of our members (Mr. Rollie Stewart) attended a meeting summarizing the group's initial conclusions. More constructive input will be provided once the management plan has been fully developed and available for review.

5) Provincial Museum

Letters were sent to the Premier and Minister of Tourism indicating our support for upgrading the Museum's facility. The government is working toward providing available funding for this objective.

6) Alberta Conservation Strategy

Two members of the Sub-Committee (Dr. Guy Swinnerton and Ms. Robyn Usher) have contributed major sector papers, "Parks and Outdoor Recreation" and "Wetlands," respectively for the Alberta Conservation Strategy.

Our Sub-Committee forwarded an emergency resolution on forestry to the Premier and relevant Ministers. It focused on the need for comprehensive public hearings on the management of Alberta's northern forests and suggested that the Environment Council of Alberta should carry out such hearings. The government has chosen to have a more limited set of hearings and to restrict these to communities which would be directly impacted by forestry development. Our efforts to have these extended to Calgary and Edmonton were only partially successful, with the hearings extended to the latter city.

The Sub-Committee also invited speakers from various government departments. Their presentations helped us to better understand current programs, practices and plans affecting various aspects of the environment. These speakers were: Mr. Bernard Campbell, Deputy Minister, Alberta Tourism spoke to us on Tourism Planning in Alberta; Mr. Peter G. Melnychuk, Assistant Deputy Minister, Water Resources Management Services, Alberta Environment and Mr. Dick Hart, Senior River Basin Planner, Alberta Environment spoke on the South Saskatchewan River Management Plan; Mr. Dave Day, Superintendent, Banff National Park spoke about the Banff National Park Management Plan; Mr. Dennis Bratton, Head, Regulated Operations Branch, Land Reclamation Division, Alberta Environment and Mr. Howard Slavinski, Supervisor, Sand and Gravel Section, Land Reclamation Division, Alberta Environment spoke on the topic of Corridor Lands; Mr. Leigh Noton, Environmental Quality Monitoring Branch, Alberta Environment and a representative from Fish and Wildlife Division, Forestry, Lands and Wildlife spoke on the Proposed Monitoring of Pulp Mill Contaminants in Athabasca River.

Personally, it has been a rewarding experience as Chairman, to co-ordinate the extensive personal resources of our Sub-Committee. I have appreciated the efforts given when members have been asked to make significant contributions on specific topics and I have been impressed by the quality of the work they have contributed. Such co-operation has made my position much easier to manage and reflects on our successful functioning. The enthusiastic and invaluable assistance of Environment Council staff has also been an important element in our Sub-Committee's work.

I thank all these individuals for their contribution to our team effort and look forward to our continued involvement and work on behalf of a major provincial resource — our natural environment.

Dr. Michael Muc
Chairperson
Environment Protection Sub-Committee

Members of the Environment Protection Sub-Committee

Chairperson

Dr. M. Muc	— City of Camrose
Mrs. S. Abercrombie	— Unaffiliated
Ms. B. Beswick	— Canadian Parks and Wilderness Society (Banff/Calgary Chapter)
Mr. C. Blackburn, Jr.	— Foothills Protective Association
Mrs. D. Broadbent	— Unaffiliated

Ms. E. Butler*	—	Edmonton Local Council of Women
Mr. B. Calverley*	—	Ducks Unlimited Canada
Mr. T. Code	—	The Alpine Club of Canada
Mr. A.C. Dunkley	—	Unaffiliated
Mr. G. Fabris	—	Red Deer College
Mr. H. Fauser	—	Alberta Fish and Game Association
Mr. M. Henderson	—	University of Alberta
Mr. J.W. Hogan	—	Canadian Manufacturers' Association
Dr. R. Holmberg	—	Athabasca University
Mr. K. Huzil*	—	County of Strathcona
Mr. D. MacIsaac	—	Canadian Society of Environmental Biologists (Alberta Chapter)
Mrs. J. Meikle*	—	YWCA
Mrs. M. Newton*	—	Women of Unifarm
Mr. D. Penner+	—	Alberta Society of Professional Biologists
Mr. H. Pharis	—	Health Unit Association of Alberta
Mr. R.M. Richardson	—	Unaffiliated
Ms. C.J. Ritchie	—	Sierra Club (Alberta Chapter)
Mrs. R. Robinson	—	Alberta Association of YWCAs
Dr. R. Scace	—	Unaffiliated
Mr. M. Scott-Brown	—	Alberta Society of Professional Biologists
Mr. G.R. Stewart	—	Southern Alberta Environmental Group
Dr. G. Swinnerton	—	Canadian Parks and Wilderness Society (Edmonton Chapter)
Ms. R. Usher	—	Unaffiliated
Dr. D.J. Whitson	—	University of Alberta
Ms. P. Wight	—	City of Edmonton
Mr. H. Zenger*	—	Sierra Club of Alberta

* No longer on Sub-Committee

\+ Attended Sub-Committee as Alternate

EEAC Liaison — Mr. R. Sweet

SAC Liaison — Dr. T. Veeman

3.3.2.3 Pollution Sub-Committee

> ...the impact of human activities on the quality of air, water and soil and the associated health effects on plants, animals and man.

Report from the Chairperson — Dr. Paul Ramalingam

The year 1989 witnessed many productive discussions and courses of action by the Pollution Sub-Committee. Many issues from last year continued to dominate our discussions and they were dealt with vigor and enthusiasm. Major discussions centered upon the following issues:

1) Pulp and paper mill development in northern Alberta evoked an initial and ongoing response from our Sub-Committee. We asserted the urgency of having a strong environmental impact assessment process for such megaprojects, which often have adverse impacts upon the environment. In particular, we were concerned about the quality of Athabasca River water. We also favored the idea that all Albertans should have input into the environmental impact assessment, not just the industries concerned.

2) Dioxins and other toxins in the effluents of the Procter and Gamble pulp mill drew much attention. Our actions were aimed at learning the chemical composition of effluents, including the sludge in Procter and Gamble's south settling basin. The danger posed by the sludge gained media attention when a truck driver engaged in the process of moving the sludge was accidentally exposed to it and became ill.

3) Caroline Sour Gas Developments — released assessment documents on environment impact, socio-economic conditions, and health impact were reviewed and concerns were identified. Further recommendations were made to improve the assessment documents.

4) Acid Deposition Research Program — actions were taken to urge the government to implement the recommendations contained in the final report of the Acid Deposition Research Program. The Sub-Committee also

supported the necessity for further research on this program.

The following issues also received considerable attention:

1) Repeatedly we have observed with disappointment that the Alberta Government is doing very little to implement the recommendations of the Action Plan for Environmental Law Enforcement in Alberta or to expedite the formation and operation of a "round table" as a consulting body to implement the recommendations of the National Task Force on Environment and Economy.

2) Reaching specific water quality objectives with special reference to the Athabasca River basin also gained much attention.

3) Herbicidal spraying in the forest was debated from the question of value point of view. A formal mechanism by way of public hearings is necessary to address the use of herbicide in forest management practices.

Aside from the aforementioned topics, at least 15 other environmental issues were taken up for discussion and further action. They included the greenhouse effect, pesticide container disposal, priority substances list, hospital emissions, etc.

Review of document — "Health Promotion," one of the sector papers for the Alberta Conservation Strategy, has been revised several times. Many members have participated in this process in order to enhance the quality of the paper.

A resolution — "Pesticides-Right-to-Know Legislation," was made to reflect the broad concerns of our Sub-Committee on the ever pervasive chemicals in our society. Posting of such warning is intended to educate the public and to ensure safety.

Speakers were invited to provide information: Mr. Barry Johnston of Friends of the Athabasca outlined the need for public hearing and funding to hire independent consultants relative to the Environmental Impact Assessment of the development of pulp and paper mills in the Athabasca region; Mr. Jim Rogers of the Alberta Trappers Association, Fort McMurray stressed the need to have a third party investigate concerns arising from sludge ponds, groundwater contamination, flyash emissions, heavy metal build up, operation monitoring, and research of the tar sands plants. The Sub-Committee later requested Alberta Environment and the Energy Resources Conservation Board to co-sponsor a workshop to address these issues; Mr. Randy Lawrence expressed concerns of the citizens of the Athabasca area with respect to forest destruction and pulp and paper mill pollution; Dr. Robert Lane of Environment Canada delivered information on the various federal departments and their interests with respect to the pulp and paper mill development in northern Alberta; Mr. Roy Neehall, Solid Waste Branch, City of Edmonton spoke on the engineering and ecogeological features designed to ensure safety of the proposed Aurum landfill site. He presented information on other facilities such as recycling and hazardous waste disposal at the site; Dr. John O'Laney, Edmonton Board of Health elaborated on the Board's various processes for new landfill site applications.

During 1989, Trevor Hodge and Alex Metcalfe, members who have left, contributed much to the vitality of our Sub-Committee. Their contributions will not be forgotten. Chen Yan Hua (from Republic of China), Jenny Krabbe, Mary Ann Yurkiw, and Grant Trump are valuable additions to our group.

The enthusiasm of the our members was primarily responsible for many good things achieved this year. To them, I want to register a vote of thanks. I also want to extend my gratitude, appreciation, and thanks to the administrative and research staff of Environment Council of Alberta, and the Vice-Chairman of the Sub-Committee. And my special thanks go to Archie Landals and Randy Pretty.

Dr. Paul Ramalingam
Chairperson
Pollution Sub-Committee

Members Of The Pollution Sub-Committee

Chairperson

Dr. P. Ramalingam — Canadian Union College

Mr. M. Andresen*	— Fort Saskatchewan Regional Industrial Association
Mrs. G. Bako*	— Alberta Cancer Board
Mr. N. Carlson	— City of Wetaskiwin
Dr. M.H. Chaudhry	— Lakeland College - Vermilion Campus
Dr. K. Cummins	— Mount Royal College
Mr. R. Dovell*	— Alberta Fish and Game Association
Mr. G. Ferguson*	— Cascade Society of Mount Royal College
Mr. R. Gillespie	— Strathcona Industrial Association
Mrs. J. Hedenstrom-Hayden	— Unaffiliated
Mrs. S. Henderson	— Alberta Association of Registered Nurses
Mr. T. Hodge	— Alberta Public Health Association
Mr. M. Homan	— SAIT
Mr. W. Irwin	— Canadian Institute of Public Health Inspectors (Alberta Branch)
Mr. W. Koning	— Citizens for Public Justice
Mrs. J. Krabbe+	— Citizens for Public Justice
Dr. M. Kostuch	— Unaffiliated
Mrs. D.J. Lewoniuk*	— Alberta Lung Association
Mr. H. Lillo	— Energy Resources Conservation Board
Dr. M.J. MacQuarrie	— Alberta Medical Association
Mr. A. Metcalfe*	— Canadian Manufacturers' Association
Mr. B.J. Pavelich	— Medicine Hat College
Mr. K. Ohman+	— SAIT
Dr. R. Mutch*	— Medicine Hat College
Mr. R. Romanetz	— City of Drumheller
Mrs. J. Roschlaub	— Alberta Pharmaceutical Association
Mr. W.K. Ross	— Unaffiliated
Dr. F. Siddiqui	— NAIT
Mr. H. Siebert	— Fort Saskatchewan Regional Industrial Association
Mr. D.R. Thomas	— Law Society of Alberta
Mr. G. Trump+	— SAIT
Dr. L. Wojtiw	— Canadian Meteorological and Oceanographic Society
Mr. B. Worbets*	— Canadian Petroleum Association
Ms. C. Yan Hua	— Students' Association of Mount Royal College
Ms. M. Yurkiw	— Alberta Lung Association

* No longer on Sub-Committee

\+ Attended Sub-Committee as Alternate

EEAC Liaison — (Vacant)

SAC Liaison — Dr. R.K. Lane

3.3.2.4 Renewable Resources Sub-Committee

Report from the Chair — Mrs. Maryhelen Posey

During 1989, the Renewable Resources Sub-Committee maintained its commitment to broad-scale forest management, both because this area includes all of our assorted interest topics and because the next several years are clearly going to present a succession of major concerns involving forest management.

We began the year with an especially important program. The Indian Association of Alberta consented to provide us with a speaker to cover management concerns as the native community perceives them; in fact, we received a delegation! Mr. Roy Louis, the President, Mrs. Peggy Hutchison Louis, Communications Officer, and Mr. Walter Janvier, who handles their environment committee, all came. Mr. Janvier remained for our entire meeting. The discussion, though non-confrontational, was frank and useful. Perhaps even more important, the contact has been maintained on an occasional but continuing basis; soon it may be possible to have a regular representative on PAC.

Renewable Resources also became involved in the northern forest development controversy, beginning with a presentation from John Sheehan and Jeff McCann of Friends of the Peace. Our involvement, however, has been directed more toward question of Forest Management Agreement operations than pulp mill concerns. We are pursuing water quality concerns, however, from the perspective of wildlife and fisheries impacts.

A novel direction in forest management issues arose with the hearings into the diseased bison

problem in Wood Buffalo National Park. The Sub-Committee is tracking this issue and will contine to do so through the hearings in the spring of 1990. As an outgrowth of this, we are also beginning to follow the development of formal wildlife medicine programs in Canada, and expect more work on that in 1990.

The issue of northern forest development raised its head again with a report from Dave Brown of Alberta-Pacific Forest Industries Incorporated on their environment planning program. Their intention is to provide extensive opportunities for public input at the forest management plan and annual operation plan levels. We will be following this closely.

Autumn meetings began with a much more narrow topic — the policy and practice of bear location in Alberta — which was repeatedly brought to the attention of the Sub-Committee. Ron Hanson of the Problem Predator Program, spoke and identified a serious problem of public awareness. The Sub-Committee has written to Alberta Forestry, Lands and Wildlife to encourage resolving this with some suggestions. It was a smallish issue, but a satisfying opportunity to really achieve something!

An overview of the environment protection initiatives of the Energy Resources Conservation Board, presented by Roger Creasy and Ed Brushett completed our formal program for the year. A great deal of progress has been made within the ERCB to open their decision-making process to public input. They are also pressuring other agencies to follow suit.

Renewable Resources Sub-Committee continued to contribute toward four background papers for the Alberta Conservation Strategy: "Forestry Discussion" and "A Place for Wildlife" drafts are completed, and the "Wilderness" and "Bio-diversity" papers are in their last stages of preparation.

None of this would have been possible without the assistance of Environment Council staff: Randy, who remembers what we *have* to do so I can worry about what we *want* to do; Pam, who can actually read my handwriting; Archie, who reminds us of the limits of possibility; and Brian Free, who lets us pretend that we have done far more work on background papers than we have, and leaps into the breach when programs must be reorganized at the last minute.

The members do the rest of the work, of course. I especially want to thank my Vice-Chair, Clark Fawcett, for his always good-natured back up (and the one-liners that don't get into the minutes); Joan Snyder and Elmer Kure for the lion's share of our Alberta Conservation Strategy contribution; Ted Drouin for his initiative in beginning to pick up some of the reading follow-up; and all of you for co-operating in my policy of requiring anyone who wants a letter written to stay after class and write it for me.

I will be remaining as Chair of Renewable Resources next year, with Clark Fawcett as Vice-Chair, and look forward to a productive year again as long as you all keep doing the work for me! Thank you.

Mrs. Maryhelen Posey
Chair
Renewable Resources Sub-Committee

Members Of The Renewable Resources Sub-Committee

Chair

Mrs. M. Posey	— Unaffiliated
Mr. D. Appleby*+	— Cold Lake Community Advisory Committee
Mr. N. Barber	— Alberta Trappers' Association
Mr. J. Bauer+	— Alberta Forest Products Association
Dr. W. Cox	— Alberta Veterinary Medical Association
Dr. B.P. Dancik	— Trout Unlimited Canada (Alberta Council)
Dr. T. Drouin	— Keyano College
Dr. D.K. Elton	— Canada West Foundation
Mr. C. Fawcett	— United Farmers of Alberta Co-operative Limited
Mr. H. Gardner	— Federation of Alberta Naturalists
Mr. P. Herzog	— Lethbridge Community College

Mr. E. Kulcsar	— Canadian Institute of Forestry
Mr. E. Kure	— Unaffiliated
Ms. A. Lacombe	— Cold Lake Community Advisory Committee
Mr. G. Leithead	— Alberta Forest Products Association
Mr. D. Mallon*	— Edmonton Chamber of Commerce
Ms. J. McLean-Hayden	— Alberta Wilderness Association
Mr. A. Rytz*	— Alberta Forest Products Association
Ms. L. Sherren	— Alberta Snowmobile Association
Dr. J. Snyder	— Grande Prairie Regional College
Mr. D. Stiles	— Canadian Nature Federation
Mrs. J. Walter	— Unifarm
Mr. T. Williamson*	— Canadian Institute of Forestry

* No longer on Sub-Committee

\+ Attended Sub-Committee as Alternate

EEAC Liaison — Mr. I. Waugh

SAC Liaison — Dr. R. Swanson

3.3.2.5 Rural Environment Sub-Committee

> ...sustainability of the rural environment for agriculture, residential and recreation use and the wildlife it supports.

Report from the Chairman — Dr. J. Charlie Wood

A wide range of topics of interest and concern to rural Albertans were considered, including soil salinization and erosion, the use of sewage effluent for irrigation, the Blood Indian Reserve irrigation project, grassland restoration, the effect of siesmic testing on water wells, the broad subject of information reaching the general public about food quality and safety, and the vulnerability of groundwater to pesticide contamination.

One resolution was prepared (for presentation to the Annual Joint Meeting) dealing with soil salinity and requesting research funding in this area be given a high priority by the provincial government.

Another resolution dealing with information reaching the public about food safety and quality was considered. Because this topic is so broad, it was felt that more preparation and consideration was necessary to enable the Sub-Committee to prepare a meaningful resolution. This will be a major topic for consideration next year and the areas of production enhancement in livestock, the use of natural versus chemical fertilizers and removal of soil nutrients by off-site consumption of agricultural products will be considered.

An area where misconceptions abound is the effect on water wells of seismic testing. This will be examined in detail and an attempt to consolidate existing information will be made.

Soil use and conservation practices continue to be a major area of concern to rural Albertans and are being addressed in a number of ways, including the program entitled, "Conservation Soils" sponsored by the Alberta Wheat Pool. Farmer awareness of conservation methods and potential benefits will be considered along with other topics.

Rural Environment Sub-Committee meetings have been well attended by interested and concerned members who have provided valuable input throughout the year.

Very sincere thanks are extended to Environment Council staff, including Dave Buchwald, Archie Landals, Pam MacKechnie, Ken Nelson, Randy Pretty, and Kim Sanderson for their enthusiastic and capable assistance which was cheerfully provided whenever it was needed.

Dr. J. Charlie Wood
Chair
Rural Environment Sub-Committee

Members of the Rural Environment Sub-Committee

Chair

Dr. J.C. Wood — Unaffiliated

Mr. J. Aplin	— Heavy Crude Council
Mr. W. Arrison	— Alberta Conservation Tillage Society
Mr. T. Blowers	— Irrigation District No. 16
Dr. J. Cheng	— Unaffiliated
Mr. H. Craig	— Western Barley Growers' Association
Dr. S. Dalton	— Concordia College
Mrs. T.L. Degenhardt	— Women of Unifarm
Mr. K. Gesell*	— County of Strathcona
Mrs. H. Hallett	— Alberta Women's Institute
Mrs. A. Hendry	— Council of Alberta Rural Ratepayers' Association
Mr. R. Hill	— Olds College
Mr. E. Jarvis	— Western Stock Growers' Association
Mr. A. Kolk	— Christian Farmers Federation
Mr. G. Miller	— Alberta Association of Municipal Districts and Counties
Mrs. S. Nelson Pier*	— Alberta Conservation Tillage Society
Mr. W.M. Norris	— Dryland Salinity Control Association
Mr. H. Patching	— Alberta Wheat Pool
Mr. R. Renwick	— Alberta Irrigation Projects Association
Mr. G. Shaw	— Alberta Institute of Agrologists
Mr. J. Shemanchuk	— Entomological Society of Alberta
Mr. R. Thirnbeck*	— Mount Royal College
Dr. L.W. Turchenek	— Alberta Research Council
Ms. M.J. Turnell	— Academic Women's Association
Dr. D.J. Whitson*	— University of Alberta

* No longer on Sub-Committee

EEAC Liaison — Mrs. A. Hendry

SAC Liaison — Dr. S. Dalton

3.3.2.6 Report of the Urban Environment Sub-Committee

..maintenance and enhancement of urban infrastructure, systems and institutions so as to minimize environmental impacts and improve the livability of our cities.

Report from the Chairperson — Mr. Kenn Blom

Urban Environment had a very active (six meetings) year. Topics included: indoor air quality, recycling of plastics, healthy communities projects, Red Deer urban parks — field trip, impact of Fort McMurray water supply — pulp mill development upstream, and an update on Municipal 2020 Project.

The highlight of the year was our visit to the Red Deer Urban Parks Project in June. Our hostess, Gail Surkan and the Red Deer people provided our members with tremendous hospitality and an opportunity for an in-depth review of the project, including "biking in the rain." Their project demonstrates what a community can do with a combination of foresight, utilization of natural attributes, and a tremendous amount of volunteer support.

A wide variety of activities are available through the project which encompasses an opportunity for all ages to get involved with environmental protection efforts. We were particularly impressed with utilization of revitalized demolition and gravelled out areas in the design package and the accessibility to path areas throughout the City of Red Deer, as well as the multi-faceted activities available throughout the project. The current biological mosquito-control program carried out in Red Deer may well set a good example for other communities. The value of the project to residents of Red Deer and area of course is certainly noted. However, the long-term potential for this parks' project in terms of opportunities for tourism promotion is certainly a focus for the future.

You will note in our 1988 report that we committed our support to the need for moving ahead with Phase II of the Urban Parks Project. Our Sub-Committee, buoyed by the Red Deer experience, is certainly pleased to note the action of government and has sent a letter to Premier Getty, congratulating him and his government on moving ahead with Phase II of the Urban Parks Project.

The fact that three-quarters of our population now lives in urban areas, the current aging of our population, and the changing needs of our times have brought our members to focus their attention on many problems that exist in the urban environment. Among these, of course, we have the question of indoor air quality and the need for research in this area. This need for research is partly being met through the project being carried on by the Calgary Local Board of Health with support from Alberta Health. The Sub-Committee notes as well, the dedication by government of dollars toward the upgrading and training of public health inspectors to become more knowledgeable in the field of indoor air quality.

Recycling activity in the province is certainly taking off, but not without problems. The Chairman attended the Recycling Council meeting in Lethbridge in October. It is easy to see that there is a great deal of activity in the recycling area. However, there is a need for more research, in-depth planning, and development of markets and opportunities in the recycling mode. The Sub-Committee, although being supportive of the recycling concept, is totally committed to the four R's of waste management and certainly supportive of the need for a fifth 'R', that being identified by the Recycling Council of Alberta as 'Responsibility.'

Preservation of our water supplies and protection needed for both supply and quality was the focus of the look at pulp mill developments upstream to urban communities in the northern part of Alberta. The Sub-Committee, along with many other environmental groups, is supportive of the need for public hearings on the pulp mill developments and the opportunity to represent, through environmental impact assessment hearings, the concerns of the larger regional aspects of this type of development. We also believe an opportunity must be provided for input with the conducting of hearings in the larger urban centers, for example, Edmonton, Calgary, etc.

We are disappointed that the citizens of Calgary missed an opportunity to speak out for the environment and to 'put their vote where their mouth is' when it comes to the question of water meters. Conservation is a part of environmental protection and the need to address environment as a major concern in our lifestyle must carry with it the stamp of a personal commitment that could well have been made with a vote in favor of water metering at the local elections in October 1989.

You will note our resolution on the evaluation of landfill funding programs and seek your support for the inclusion of the four 'R's' of waste management in all evaluation of waste management projects.

We look forward to continued support from government in a leadership role and the appointment of a Chief Executive Officer to the Environment Council of Alberta. All our members, I am sure, share with me the positive outlook that together we can move forward in providing a high standard in the environment which will be the envy of the world.

My thanks to the support of Randalin Pretty, Archie Landals, and other members of Environment Council staff.

Mr. Kenn Blom
Chairperson
Urban Environment Sub-Committee

Members of the Urban Environment Sub-Committee

Chairperson

Mr. K. Blom	— Unaffiliated
Ald. N. Armstrong	— City of Fort Saskatchewan
Ald. D. Arthur	— City of Lloydminster
Mrs. G. Bako+	— Alberta Cancer Board
Dr. L. Bakshi	— Unaffiliated
Ms. E. Butler	— Edmonton Local Council of Women
Mrs. L. Daniel*	— Alberta Association of Landscape Architects
Mr. R. Davidson*	— City of Airdrie
Mr. K. Driver	— Unaffiliated
Ms. S. Fincham	— Alberta Cancer Board
Mr. W.A. Flook	— Unaffiliated
Ald. B. Gendreau	— City of Fort McMurray
Ald. N. Hartfelder	— City of Leduc

Mr. V. Kozak	— Alberta Association of Architects
Ms. W. Lee*	— Society for the Preservation of Architectural Resources in Edmonton (SPARE)
Ms. J. Lewin	— City of Calgary
Mrs. M. Lutz*	— Consumers' Association of Canada
Mr. F. Markson*	— Urban Development Institute of Alberta
Mr. E. Park+	— Alberta Urban Municipalities Association
Dr. K. Pennifold	— Unaffiliated
Ald. D. Petroski*	— City of Fort Saskatchewan
Mr. S. Pragnell	— Alberta Association Canadian Institute of Planners
Mr. E. Radbourne	— City of Grande Prairie
Ms. C. Read	— Canadian Union of Postal Workers (Edmonton and Area Local)
Ald. C. Reid	— Alberta Urban Municipalities Association
Mr. P. Rudiak*	— Keyano College
Mrs. J. Sloan	— Lloydminster Chamber of Commerce
Ald. G. Surkan	— City of Red Deer
Ald. G. Thate*	— City of Fort Saskatchewan
Mr. H. Weissenborn	— Consumers' Association of Canada
Mrs. R. Wood+	— Consumers' Association of Canada

* No longer on Sub-Committee

+ Attended Sub-Committee as Alternate

EEAC Liaison — (Vacant)

SAC Liaison — Dr. S. Dalton

3.3.3 ENVIRONMENTAL EDUCATION ADVISORY COMMITTEE

...to advise the Council and the Government on matters concerning environmental education, to comment on environmental programs both within and outside of the formal educational systems, and to assist in the formulation, development and implementation of such programs wherever possible.

Report from the Chairman — Dr. Albert A. Einsiedel, Jr.

The Environmental Education Advisory Committee started 1989 with a close look at the Junior High Environmental/Outdoor Program for Grades 7, 8, and 9 contracted by the Department of Education to the Calgary Public Board. The EEAC has been monitoring the progress of the work throughout the year.

One of the more significant activities that took up much Committee time and effort was the production of the discussion paper *EE2000* for the Alberta Conservation Strategy. The initial attempt to formulate a multi-authored edited compilation of essays permitted the Committee to clarify its position on several issues. The EEAC then decided to proceed with a more integrated approach of producing a single paper that reflects the views of most of the members of the Committee who participated in the writing effort. Much help was received by the Committee from Environment Council staff, especially from Kim Sanderson, during the entire process.

The Committee kept itself informed of the developments occurring with the Alberta Conservation Strategy Steering Committee, the Joint Committee on Environmental Education (of the Alberta government departments), Blue Lake, Water Literacy Program, Environment Week '89, the Wilderness Areas and Ecological Reserves, the junior and senior high school science curriculum, the North American Conservation Hunter Education Championship Program, the Kananaskis Centre's project to develop curriculum support materials for Grades 6 to 7, Science 14 and Grade 10, the New Visions Conference held by Alberta non-government organizations at the University of Calgary in March, focussing on the theme "International Development and Environment," the Environmental Sabbath, the Friends of Environmental Education Society of Alberta (FEESA) project to develop a junior high school

curriculum that focuses on the Alberta Conservation Strategy, the Alberta Rivers Conference "Flowing to the Future" held at the University of Calgary in May, the Fourth Earth Education Conference held at the Yamnuska Centre in May, the North American Association for Environmental Education Conference held in Colorado in August (which was attended by several EEAC members), the Adopt a Stream project, and a number of other environmental education-related events that affect Albertans.

Special presentations were also made to the Committee by Mr. Raja Panwar, Program Manager, Senior High Science, Curriculum Development Branch, Alberta Education, on the proposed high school curricular changed for General Science, Chemistry, Biology and Physics; Mr. Bernie Galbraith, Program Manager, Junior High Science and Environmental Education, Alberta Education; and Mr. Ron Sweet, Environmental Education, Calgary School Board, on the Junior High Environmental and Outdoor Education project; and by Mr. Mike Quinn, Executive Co-ordinator, Prairie for Tomorrow Project of the World Wildlife Fund, Canada.

The EEAC was also actively involved in the Environmental Award selection committee having had an opportunity to look into the submissions and participate in the review of the past proceedings.

The EEAC also agreed to take an active part in the planning and implementation of this year's Annual Joint Meeting. Some of our members were involved in contacting speakers and in facilitating small group discussions.

On behalf of the members of the EEAC, I wish to express our thanks to Ms. Randy Pretty, Mr. Ken Nelson, Mr. Archie Landals, and the rest of their staff who have given our Committee a lot of support during this year. We look forward to another active year in which environmental education — not only formal education — will be a major area of interest for the Environment Council of Alberta. We look forward to diversifying our membership and enriching the sharing of ideas about environmental education in Alberta.

Dr. Albert A. Einsiedel, Jr.
Chairman
Environmental Education Advisory Committee

Members of the Environmental Education Advisory Committee

Chairperson
Dr. A.A. Einsiedel, Jr.

Mr. D. Merrills	— Vice-Chairperson
Mrs. M. Bailey*	— Membership Chairperson

Mr. E. Bailey	Mr. D. Merrills
Mr. W.P. Batycky	Mr. R. Mrazek*
Ms. S. Fast*	Mr. B. Ogston
Mrs. J. Finlay	Ms. B. Russell
Dr. J. Godfrey*	Dr. W. Samiroden*
Ms. D. Griff*	Mr. B. Sliwkanich
Ms. M. Haag	Mr. H. Snyder
Ms. L. Hart	Mr. R. Sweet
Ms. J. Hayward	Mr. I. Waugh
Mrs. A. Hendry	Mr. B. Wylie
Mr. J. Martin*	Ms. W. Zelt*

* No longer on EEAC

Liaison Persons For PAC Sub-Committees

Mr. W.P. Batycky	— Energy and Non-Renewable Resources
Mr. R. Sweet	— Environment Protection
(Vacant)	— Pollution
Mr. I. Waugh	— Renewable Resources
Mrs. A. Hendry	— Rural Environment
(Vacant)	— Urban Environment
Mr. I. Waugh	— Renewable Resources
Mrs. A. Hendry	— Rural Environment
(Vacant)	— Urban Environment
Ms. M. Haag	— Science Advisory Committee

3.3.4 SCIENCE ADVISORY COMMITTEE

Report from the Chairperson — Dr. Sheri Dalton

(Report not available on publication date)

Dr. Sheri Dalton
Chairperson
Science Advisory Committee

Members of the Science Advisory Committee

Chairperson	
Dr. S. Dalton	— Concordia College
Dr. C.F. Bentley	— Department of Soil Science, University of Alberta
Dr. W.A. Fuller	— Department of Zoology, University of Alberta
Dr. J. Godfrey	
Ms. M. Haag	— Department of Zoology, University of Alberta
Dr. J. Hackler	— Department of Sociology, University of Alberta
Ms. L. Horstman	— Canadian Society of Environmental Biologists
Dr. F. Kozar	
Dr. D. Kvill	— Athabasca University
Dr. R.K. Lane	— Environment Canada
Dr. P. Mahaffy	— Department of Chemistry, King's College
Dr. W. Moser*	— Department of Botany, University of Alberta
Dr. R.P. Pharis	— Department of Biology, University of Calgary
Dr. W. Phillips*	— Department of Rural Economy, University of Alberta
Dr. B. Rogers*	— Concordia College
Dr. R. Swanson	— Canadian Forestry Service
Dr. D. Thompson	— Faculty of Environmental Design, University of Calgary
Dr. W.H. Vanden Born	— Department of Plant Science, University of Alberta
Dr. T.S. Veeman	— Department of Economics, University of Alberta
Mr. W. Wishart	
Dr. P. Woodard*	— Department of Forest Science, University of Alberta

* No longer on SAC

Liaison Persons for PAC Sub-Committees

Dr. D. Kvill Dr. P. Mahaffy (Alternate)	— Energy and Non-Renewable Resources
Dr. T. Veeman	— Environment Protection
Dr. R.K. Lane	— Pollution
Dr. R. Swanson	— Renewable Resources
Dr. S. Dalton	— Rural Environment
Vacant	— Urban Environment
Ms. M. Haag	— Environmental Education Advisory Committee

3.4 ALBERTA CONSERVATION STRATEGY

This has been a year of mixed feelings for the Steering Committee — satisfaction, frustration, some sadness — but in the end, optimism.

We experienced a great deal of satisfaction in the publication of 5 more sector reports by the end of November, for a total of 14; the remainder are very near completion. The *Prospectus* continues to generate interest, as we distributed more than 1,500 copies in 1989, with the total number in circulation exceeding 5,200. Over 7,000 copies of sector papers were also distributed in 1989, and this total is now approaching 20,000.

We were especially pleased to complete our Alberta Conservation Strategy (ACS) package this year: the drafts *Framework for Action;* and the *Strategic Framework in Brief;* also the "What I Can Do for the Environment" checklists. The draft workbook-style *Approaches to Implementation*, companion to the *Framework*, is now in the final stages of editing. Countless hours went into the writing, review, editing, and distribution of these materials, and the Steering Committee is grateful to ECA staff who have been very dedicated and persistent in their support of this project. We are also most appreciative of the contributions made by hundreds of knowledgeable individuals outside PAC and the ECA who gave so generously of their

time and expertise to help prepare and review these materials.

We believe our package, in particular, the *Strategic Framework*, offers a new perspective on implementing sustainable development in Canada. It is a principled framework, requiring that early and thorough consideration be given to the process of decision making as well as to the outcome. It also provides a step-by-step guide to making decisions and taking action to ensure that each step is compatible with the others. All parts of the ACS package will be offered as drafts for public discussion and, although PAC and the Steering Committee are not intending to revise these documents, we welcome comments from any source. We are hopeful that some form of broad public participation will be announced to enable all Albertans to offer their views and ideas on a strategy for sustainable development for our province.

It has been very satisfying to see the already high level of interest in our activities build even further this year. Environment Council staff and members of the Steering Committee continue to receive invitations from all over Alberta; these include classroom presentations, panel discussions, conferences, luncheon speeches, and media interviews. We have met virtually all of these requests for information in whole or in part, depending on time and budget available. Largely in response to such face-to-face encounters, our ACS mailing list keeps on growing; we had some 1,500 additions this year, and the total number now exceeds 3,800 individuals and organizations. Anticipating that these requests will continue, a slide show and speakers' notes were compiled in 1989 to assist PAC members who are interested in promoting the ACS project, to get more involved.

Several thousand hours of volunteer time have been put into the ACS project by the Public Advisory Committees and other organizations who have assisted in some way with the preparation and review of materials. In light of this tremendous volunteer effort, we have been a little frustrated with the lack of a formal public participation process for the ACS. At the 1985 annual meeting, PAC formally and unanimously endorsed a resolution calling upon the Government to ask the ECA to hold hearings on a draft conservation strategy. We did not expect action until our draft was well underway, but even though the draft is now completed, uncertainty remains over what form the public participation will take.

Our sad note of 1989 was the departure of Mike Kelly from the Environment Council to join the Secretariat of the National Round Table on Environment and Economy in Ottawa. Mike was an important part of our process; his contagious enthusiasm and commitment and his creative ideas pushed us ahead into often uncharted waters, but we know that our product and the process we have promoted in Alberta are enormously better thanks to his contributions. We wish him well and are certain he will face his new challenges with the same equanimity and keenness.

Optimistically, we are seeing a growing interest in conservation among educators, and this, we believe, bodes well for the future of our province and our planet. Education, the theme of the 1989 annual meeting, is a lifelong process, and we have been delighted to see interest in the conservation strategy coming from the elementary grades, junior and senior high, and post-secondary institutions. Many people working in the non-formal or community education system also have expressed interest in our work and our materials and this may be the most gratifying aspect of all.

With the completion of the draft strategy package, the formal role of PAC and the Steering Committee on the Alberta Conservation Strategy project is almost over. We will guide the remainder of the sector papers through to publication, and we will continue our efforts, through PAC and through our constituent organizations, to attain formal, widespread public involvement in the ACS process. I know that when this project began nearly five years ago, none of us anticipated the roller coaster ride we would be going on. In the last five years, every one of us has had to examine our own fundamental beliefs about our province, our communities, and our species; we reached a long

way down to look at our own values and those things we hold dearest.

On a personal level, I believe the Alberta Conservation Strategy project has been an immensely challenging and rewarding experience. Many diverse ideas, perspectives, and personalities were brought together under demanding conditions, and all of us as individuals have emerged a little different, and a little better as a result. The project itself has been buffeted and jostled along the way, but we never doubted that we would fulfill our goal of a draft conservation strategy. We are convinced that all of us in this province want to "treat Alberta as if we plan to stay" and the Steering Committee is proud to have been part of the process.

Dr. Joan Snyder
Chairperson
Alberta Conservation Strategy Steering Committee

Members of the Alberta Conservation Strategy Steering Committee

Chairperson
Dr. Joan Snyder

Dr. A.A. Einsiedel, Jr.	Ms. S. Nelson Pier
Mr. W.A. Flook	Mrs. E. Paschen
Ms. H. Heacock	Mr. B. Peel
Ms. S. Henderson	Mrs. M. Posey
Ms. L. Horstman	Mr. R.M. Richardson
Mrs. B. Hunter	Mrs. M. Stephenson
Mr. E. Kure	Dr. G. Swinnerton
Mr. P. Lulman	Ms. R. Usher
Ms. J. McLean-Hayden	Mrs. P. Wight

3.5 ANNUAL JOINT MEETING

3.5.1 LOCATION AND ATTENDANCE

In keeping with fiscal restraint, the Annual Joint Meeting was again held in Edmonton this year at the University of Alberta. The meeting took place on December 7 and 8 and was well attended, with over 100 participants.

3.5.2 PROGRAM

The 1989 Annual Joint Meeting continued to deal with topics of relevance to the Alberta Conservation Strategy. Structured around the theme of "Education for the Environment," this year's meeting examined the importance of educating all sectors of society if we are to successfully implement a conservation strategy for Alberta.

3.5.3 NEW OFFICERS

Dr. Joan Snyder was acclaimed chairperson of the Co-ordinating Committee for 1990. She succeeds Dr. Lochan Bakshi, who now assumes the duties of past chairperson. Dr. Bert Einsiedel was acclaimed vice-chairperson for the coming year. Among his duties will be heading the Annual Joint Meeting Planning Committee for 1990.

3.5.4 RESOLUTIONS

Three resolutions were debated at the plenary sessions of the 1989 Annual Joint Meeting. Two of these resolutions were endorsed and their text follows. A third resolution on pesticide right-to-know legislation was tabled for further study.

Resolution One

I. Soil Salinity

II. Be It Resolved:

THAT provision of research funding in the field of soil salinity by the Government of Alberta be given a high priority.

III. Background:

Salinization of soils is a serious problem that affects agriculture in Alberta. Estimates vary, but it is generally accepted that, in Alberta, about 0.5 to 2 million hectares are affected to a degree adversely affecting plant growth. Annual losses in productivity are estimated to be in the tens of millions of dollars.

Traditionally, most of the research into processes related to the salinization of soils in Alberta, the other prairie provinces, and in the northern Great Plains of the U.S. has been conducted by the soil sciences community. Such work has resulted in significant improvements in the understanding of the problem and a number of land management strategies have been developed to reduce the severity and spread of salinity. These are being implemented by the relevant government agencies (Alberta Agriculture, PFRA).

Whereas significant improvement has been noted in many areas where such land management practices have been implemented, it is apparent that:

a) some areas are not responding to those strategies,

b) the economics of remedial strategies may be questionable,

c) parts of the investigative procedures used to derive the remedial strategies may be flawed, and

d) some remedial strategies may result in detrimental environmental impacts.

It has long been recognized that the process of soil salinization is intimately related to water. That is, the weathering processes which release the salt, the mobilization processes which transport the salt, and the evaporation and transpiration processes which bring salt to the surface, all involve water.

In about the last decade, research has begun to focus on water-related processes (Eilers, 1973; Hendry and Schwartz, 1982; Henry et. al., 1985; Miller, 1989; Stain, 1987; Stein and Schwartz, in press) and is providing a broader scientific base on how the process of salinization works. This better understanding, coupled with new computer technologies (numerical process modelling, Geographical Information Systems, digital terrain modelling), and improved techniques for obtaining salinity data in the field is providing very encouraging results. These results should do much to evolve more effective investigative and management techniques.

The recent economic climate of Alberta has been such that funding for this research has been extremely difficult to obtain and there is a very real danger that future research efforts will have to be curtailed for purely financial reasons. This Sub-Committee therefore urges that the Government of Alberta consider research in the field of soil salinity as a high priority item and provide a financial atmosphere that will encourage its continuation.

IV. References:

Eilers, R.G. 1973. *Relations Between Hydrogeology and Soil Characteristics Near Deloraine, Manitoba.* University of Manitoba. Unpublished M.Sc. Thesis.

Hendry and Schwartz. 1982. *Hydrogeology of Saline Seeps.* Proceedings, First Annual Western Provincial Conference, Rationalization of Water and Soil Research and Management, Soil Salinity. Lethbridge, Alberta.

Henry, J.L., P.R. Bullock, T.T. Hogg, and L.D. Luba. 1985. Groundwater Discharge From Glacial and Bedrock Aquifers as a Soil Salinization Factor in Saskatchewan. *Canadian Journal of Soil Science,* 65. p. 749-768.

Miller, J.J. 1989. *The Origin of Dryland Salinity Near Nobleford, Alberta.* University of Alberta, Edmonton, Alberta. Unpublished PhD Thesis.

Stein, R. 1987. *A Hydrogeological Investigation of the Origin of Saline Soils at Blackspring Ridge, Southern Alberta.* University of Alberta, Edmonton, Alberta. Unpublished M.Sc. Thesis.

Stein, R. and F.W. Schwartz. In press. On the Origin of Saline Soils at Blackspring Ridge, Alberta. Submitted to *Journal of Hydrology.*

V. To Be Directed To:

Minister of Agriculture
Minister of Advanced Education

VI. Proposed by the Rural Environment Sub-Committee

Resolution Two

(Tabled for further discussion.)

Resolution Three

I. Re-evaluation of Landfill Funding Programs

II. Be It Resolved:

THAT approval of proposals for provincial government funding of waste management programs be contingent upon establishment, by the jurisdiction in question, of a waste reduction plan which incorporates waste audits, full public consultation and the "Four R's" of waste management (Reduce, Reuse, Recycle, Recover).

III. Background:

Relevant recommendations from public hearings and subsequent final report on recycling of waste in Alberta.

Previous resolution #5, 1988 and response (attached).

Resolution #208 of the Legislative Assembly of July 25, 1989 and discussion by the Honorable members during debate on that resolution (attached).

IV. References:

Environment Council of Alberta. 1987. *Recycling of Waste in Alberta: Report and Recommendations.* Available in Technical Report or Summary Report.

V. To Be Directed To:

Minister of Environment
Minister of Municipal Affairs
Premier
Minister of Health
Minister of Transportation and Utilities

VI. Proposed by the Urban Environment Sub-Committee

3.6 RESPONSES TO 1988 RESOLUTIONS

Resolutions ratified at the 1988 Annual Joint Meeting were forwarded to the Minister of Environment, and made available to the public through the Annual Report and other methods. Responses received by the Council in 1989 to the resolutions are included in Appendix B.

3.7 PUBLIC COMMUNICATIONS

The Public Advisory Committees maintain continuous and strong communications links with the government and members of the legislature, as well as with the members of its advisory and sub-committees and the general public. Letters and distribution of advisory committee meeting minutes are among the more regular forms of communication used. However, from time to time news releases on topics of wider interest or importance are produced (see Appendix C).

4. OTHER ACTIVITIES OF THE ENVIRONMENT COUNCIL

4.1 WHAT I CAN DO FOR THE ENVIRONMENT

This past year, in response to numerous questions from the public, the Environment Council created a database of "What I Can Do for the Environment" actions. The actions are practical and easy to follow suggestions for individuals.

There are presently about 220 actions organized under different topics including air pollution, energy, gardening, recycling, and wildlife. The organization of actions within a database file provides the ECA with the flexibility to prepare specialized lists for occasions such as Environment Week and Wildlife Week, and for particular audiences such as school children. Suggested entries for the database are distributed for review and comment by a variety of people including: academics, ECA staff, experts within government and industry, and knowledgeable members of the community-at-large. After suggestions have passed this scrutiny, they are entered into the database and become available for public distribution.

4.2 ECA ON-LINE

The computerized bulletin board ECA-ONLINE continued to operate in 1989. Although use was not as heavy as in previous years, it continues to be a popular medium for exchanging information primarily in the Edmonton toll-free area. About 570 people use the system.

During 1989, there were about 2,500 calls to the bulletin board and those calls totalled around 450 hours of connect time. Nearly 600 files were downloaded. Three conferences are active on the system dealing with:

- the ethics of hunting and fishing
- the World Conservation Strategy
- "What I Can Do for the Environment" database.

The system will continue to operate in the 1990 calendar year. It can be reached at (403) 438-5793, 300 or 1200 baud, no parity, 8 data bits, 1 stop bit.

4.3 CANADIAN ENVIRONMENTAL ADVISORY COUNCILS

The 13th Assembly of the Canadian Environmental Advisory Councils was hosted by Nova Scotia, September 27 to 29, 1989 in Halifax. Mr. David Buchwald, Director of Research and Mr. Archie Landals, Director of Liaison represented the Environment Council of Alberta.

This year's assembly dealt with the Role of Environmental Advisory Councils vis-a-vis Round Tables of the Environment and Economy and on Public Participation in Environmental Decisions.

The assembly enabled us to provide feedback to the Minister in terms of Alberta's recently announced Round Table.

Manitoba has agreed to host the assembly in 1990.

4.4 ASSISTANCE TO OTHER ORGANIZATIONS

In recent years we have frequently been called upon to assist other organizations or to provide commentary on reports, proposals, etc. Some examples of the assistance the ECA has provided to other organizations are shown in the chart below.

ECA Activities in Support of Other Agencies and Projects

Information and Expertise

- provided information to the Edmonton Board of Health, to support staff for the Alberta-Pacific EIA Review Board Hearings, and to consultants on the ECA brief analysis system used in public hearings
- participated in the City of Edmonton Mitigative Management Committee for the Aurum landfill
- provided review comments on the 2nd World Conservation Strategy draft report
- reviewed drafts of the State of the Prairie Environment report
- commented on the World Wildlife Fund, Endangered Spaces proposal
- commented upon proposed Minimum Distance Siting criteria regarding intensive agricultural operations for the Public Health Appeal Board
- provided information to the Premier's Commission on Health Care on relevant ECA activities
- participated in a "Catalyst" group for the Healthy Communities program
- participated in the organizing group for the Edmonton Board of Health summer school
- assisted a service club in developing an environmental awareness program
- participated in a government-industry committee looking at use or disposal of phosophogypsum
- worked with the Faculty of Extension to plan an ACS course
- facilitated discussion at CUSO's "Dynamics for Change" workshop
- reviewed draft Guidelines for Plume Dispersion Models for Alberta Environment

Speaking Engagements

- presentation on the ACS to the Northern Working Group on Conservation Strategies, Whitehorse
- presentation to a conference on the ACS process, Winnipeg
- presentation to the New Brunswick Round Table regarding sustainable development strategies
- thirteen presentations under the "Adopt a Classroom" program during Environment Week
- presentation to the Edmonton Women's Institute
- presentation to Canada World Youth, Lacombe
- presentation to the Workshop on Rare Plants in Alberta
- presentation to the Catholic Women's League
- presentation to the Canadian Association of Special Libraries and Information Science
- presentation to the Alberta Urban Municipalities Association annual meeting

Other Activities

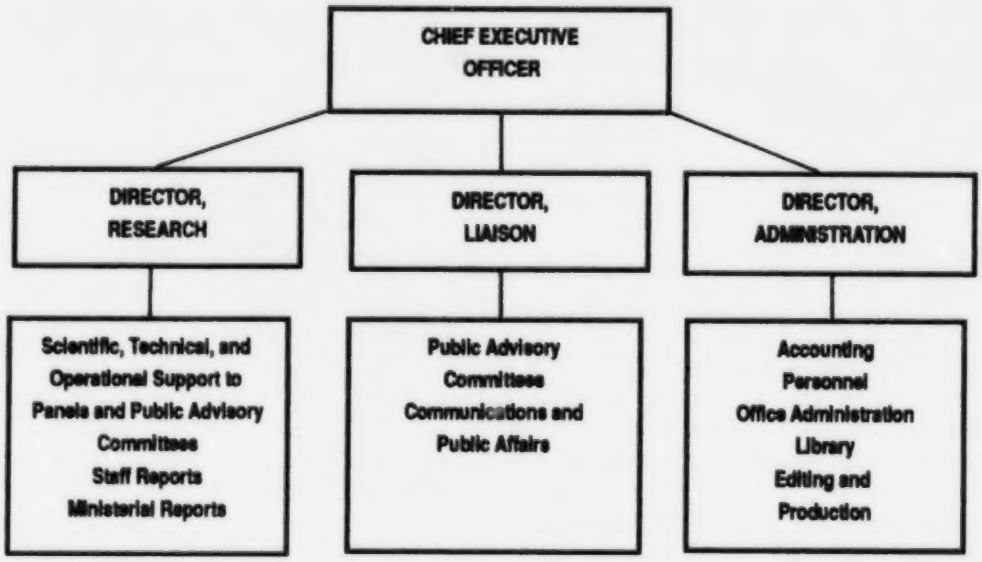
- provided ACS display presentation at the Canadian Council of Ecological Reserves meeting in Edmonton
- participated in Edmonton's "Picnic in the Park"

5. ADMINISTRATION

The Administration Division is responsible for providing services to the Environment Council in the areas of accounting, budgeting, editing, library, messenger, office management, personnel, print procurement, and purchasing.

The Council occupies the 8th Floor, Weber Centre, 5555 Calgary Trail Southbound N.W., Edmonton.

5.1 ORGANIZATION OF THE ENVIRONMENT COUNCIL



1. CHIEF EXECUTIVE OFFICER — Exercises the power of the Council and performs the duties and functions of the Council, and is a member and Vice-Chairman of panels constituted by the Lieutenant-Governor in Council

2. DIRECTOR, RESEARCH — Directs research officers and is responsible for the scientific activities of the Council

3. DIRECTOR, LIAISON — Directs assistance to the Public Advisory Committees; responsible for communications, public relations, and public affairs

4. DIRECTOR, ADMINISTRATION — Directs and supervises the administrative systems — financial, accounting, personnel, editing, and report production functions

5.2 FISCAL REPORT

Funds for the operation of the Environment Council are provided under the Minister of Environment's Vote 5 — Overview and Co-ordination of Environment Conservation. These funds are transferred to the Council from the Department of Treasury and, with the exception of salaries, are deposited in the Council's bank account at the main branch of the Canadian Imperial Bank of Commerce, Edmonton. Cheques are issued directly by the Council for payment of all accounts. During 1989, a total of 647 cheques were issued.

With the operation of its own bank account, the Council operates at arm's length from the Alberta Government. The financial statements are audited by the Office of the Auditor General. The statements as of March 31, 1989 follow.

Auditor General's Report

ALBERTA LEGISLATURE

OFFICE OF THE AUDITOR GENERAL

To the Director, Administration of the
Environment Council of Alberta

I have examined the balance sheet of the Environment Council of Alberta as at March 31, 1989 and the statements of revenue, expenditure and unexpended funds and equity in fixed assets for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Council as at March 31, 1989 and the results of its operations and the changes in its financial position for the year then ended in accordance with the disclosed basis of accounting, considered appropriate in the circumstances, as described in Note 2 to the financial statements applied on a basis consistent with that of the preceding year.

Donald D. Salmon

Donald D. Salmon, FCA
Auditor General

Edmonton, Alberta
June 1, 1989

BALANCE SHEET AS AT MARCH 31, 1989

	1989	1988
ASSETS		
Current		
Cash	$68,937	$112,650
Contributions receivable, Province of Alberta	-	103,049
Prepaid expenses	1,890	2,765
	70,827	218,464
Fixed		
Office equipment, at cost	152,084	147,445
Less: Accumulated depreciation	139,899	127,698
	12,185	19,747
	$83,012	$238,211
LIABILITIES AND EQUITY		
Current		
Accounts payable	$2,565	$3,360
Equity		
Equity in fixed assets	12,185	19,747
Unexpended funds	68,262	215,104
	80,447	234,851
	$83,012	$238,211

The accompanying notes are part of these financial statements.

STATEMENT OF EQUITY IN FIXED ASSETS FOR THE YEAR ENDED MARCH 31, 1989

	1989	1988
Balance at beginning of year	$19,747	$22,664
Add: Office equipment purchased from operations	4,639	14,399
	24,386	37,063
Less: Depreciation for the year	12,201	17,316
Balance at end of year	$12,185	$19,747

STATEMENT OF REVENUE, EXPENDITURE AND UNEXPENDED FUNDS FOR THE YEAR ENDED MARCH 31, 1989

	1989	1988
REVENUE		
Contributions by the Province of Alberta, General Revenue Fund	$795,748	$899,925
EXPENDITURE		
Salaries	699,342	712,128
Travelling	87,345	90,983
Employee benefits	81,697	86,154
Office supplies and postage	22,091	23,134
Equipment rental	16,621	20,759
Printing	15,306	38,519
Fees and commissions	7,814	13,601
Equipment purchases	4,639	14,399
Equipment maintenance	-	11,062
Advertising	-	4,485
Telephone	3,388	3,223
Hall rentals	1,955	871
Library	1,880	2,472
Miscellaneous	512	125
	942,590	1,021,915
Excess of revenue over expenditure	(146,842)	(121,990)
Unexpended funds at beginning of year	215,104	337,094
Unexpended funds at end of year	$68,262	$215,104

NOTES TO THE FINANCIAL STATEMENTS MARCH 31, 1989

Note 1 Authority

The Environment Council of Alberta operates under the authority of the Environment Council Act, Chapter E-13, Revised Statutes of Alberta 1980.

Note 2 Significant Accounting Policies and Reporting Practices

These financial statements have been prepared in accordance with generally accepted accounting principles except that fixed

assets are charged to expenditure at date of acquisition. Fixed assets are shown on the balance sheet at original cost less accumulated depreciation, with a corresponding credit to equity in fixed assets. Depreciation is charged to equity in fixed assets.

Depreciation is provided over the estimated useful life of the assets on the straight-line method at a rate of 33 1/3% for computer equipment and software and 10% for the remaining office equipment.

A statement of changes in financial position is not provided as disclosure in these financial statements is considered to be adequate.

Note 3 Administration Expenses

Office furniture and accommodation expenses incurred in the administration of the Council are borne by the General Revenue Fund and are not reflected in these financial statements.

Note 4 Approval of Financial Statements

These financial statements were approved by management.

***

5.3 PERSONNEL

The Council has 20 permanent salaried positions.

All permanent salaried positions are under the purview of the Public Service Commissioner and the regulations issued by the Personnel Administration Office are applicable. Non-management and non-excluded staff are members of the Alberta Union of Provincial Employees.

During the year, the Council conducted two competitions to replace a staff member who retired and one who moved out of the province.

The Minister initiated a competition through the services of Executive Search of the Personnel Administration Office to recruit a new Chief Executive Officer.

5.4 LIBRARY SERVICES

The responsibilities of the ECA Library are:

1) to provide information and background material to support projects of the Council and its research staff
2) to provide a source of environmental information for the general public
3) to manage and distribute all Environment Council publications.

The Library contains 6,500 books and government documents and subscribes to a number of periodicals and newspapers. The collection also includes an extensive file of newspaper clippings on environmental matters, maps, a selection of general reference material, and the Council's international environmental poster collection.

5.4.1 SERVICES TO THE ECA STAFF

Loans to Council staff (excluding periodicals)	194
Periodical loans to Council staff	106
Reference questions answered	431
Material borrowed from other libraries (interlibrary loans)	422

5.4.2 SERVICES TO THE PUBLIC

Inquiries received by phone, letter, or personal visits	1,566
Interlibrary loans to the public and other agencies	48
Loans of audiovisual material	11
Loans of posters	348

5.4.3 PUBLICATIONS

During the year, the Library was responsible for

the distribution of a large number of publications and brochures.

Annual Report 1988	840
Dinosaurs & Distant Drums	1,218
Foundations for the Future	955
EE2000	1,425
Oil and Gas in Alberta	250
A Place for Wildlife	150
Healthy Planet, Healthy People	125
Miscellaneous Publications	8,166
Total distributed	13,129

A complete list of Environment Council publications is appended to this report (see Appendix D).

The ECA mailing list was revised and updated throughout the year, and consisted of the following:

General list	2,181
Conservation Strategy list	3,208
Media list	438
PAC list	175
Environment Week Association	732
Total addresses at the end of 1989	6,734

Convenient local access to Environment Council information is available at a total of 44 depository libraries or Information Centers located throughout Alberta (see Appendix E). Transcripts of public hearings have a more limited distribution; these may be viewed at the locations marked with an asterisk in Appendix E.

5.4.4 INTERNATIONAL ENVIRONMENTAL POSTER COLLECTION

The Environment Council's collection of environmentally-related posters are available for loan to libraries, schools, and other exhibits to promote an environmental awareness. The library collection has catalogued 264 posters. During 1989, a total of 346 loans of posters were made.

5.5 EDITING SERVICES

In 1989, we produced another five Conservation Strategy sector reports and four issues of *ACS Update*, the Conservation Strategy project newsletter.

Our in-house publishing has enabled us to make reprints of publications as the need arises and this has allowed us to maintain direct control of our inventory.

Three draft documents for public discussion were created:

Alberta Conservation Strategy: Framework for Action,
Alberta Conservation Strategy: Framework in Brief, and
Alberta Conservation Strategy: Approaches to Implementation.

These reports have gone through the editing phase and are awaiting final approval.

APPENDIX A

PUBLIC ADVISORY COMMITTEE REPRESENTATIVES

(as of December 1989)

Public Advisory Committee on the Environment

Sponsoring Organizations and Representatives

Academic Women's Association ..... Ms. M. Turnell
Alberta Association for the Environmentally Hypersensitive ..... Mr. Jorg Ostrowski
Alberta Association of Architects ..... Mr. V.G. Kozak
Alberta Association of Canadian Institute of Planners ..... Mr. S. Pragnell
Alberta Association of Landscape Architects . Mrs. L. Daniel
Alberta Association of Municipal Districts and Counties ..... Mr. G. Miller
Alberta Association of Registered Nurses ... Mrs. S. Henderson
Alberta Cancer Board ..... Ms. S. Fincham
Alberta Conservation Tillage Society (ACTS) . Mr. W. Arrison
Alberta Federation of Labour ..... Mr. D. Moffat
Alberta Fish and Game Association ..... Mr. H. Fauser
Alberta Fish and Game Association ..... Mr. R. Dovell
Alberta Forest Products Association ..... Mr. G. Leithead
Alberta Institute of Agrologists ..... Mr. G. Shaw
Alberta Irrigation Projects Association ..... Mr. R. Renwick
Alberta Lung Association ..... Ms. M.A. Yurkiw
Alberta Medical Association ..... Dr. J. MacQuarrie
Alberta Pharmaceutical Association ..... Mrs. J. Roschlaub
Alberta Public Health Association ..... Mr. T. Hodge
Alberta Research Council ..... Dr. L.W. Turchenek
Alberta School Trustees Association ..... Mrs. M. Stephenson
Alberta Snowmobile Association ..... Ms. L. Sherren
Alberta Society of Professional Biologists ... Mr. M. Scott-Brown
Alberta Trappers' Central Association ..... Mr. N. Barber
Alberta Urban Municipalities Association ... Alderman C. Reid
Alberta Veterinary Medical Association .... Dr. W. Cox
Alberta Wheat Pool ..... Mr. H.R. Patching
Alberta Wilderness Association ..... Ms. J. McLean-Hayden
Alberta Women's Institutes ..... Mrs. H. Hallett
Alpine Club of Canada (The) ..... Mr. T. Code
Archaeological Society of Alberta ..... Mr. G.F. Paschen
Association of Professional Engineers, Geologists and Geophysicists of Alberta . Mr. J.E. Staples
Calgary Chamber of Commerce ..... Ms. J. Hodgson
Calgary Local Council of Women ..... Mrs. H. Heacock
Calgary Regional Planning Commission .... Ms. E. Rogers
Canada West Foundation ..... Dr. D.K. Elton
Canadian Institute of Forestry ..... Mr. E. Kulcsar
Canadian Institute of Public Health Inspectors (Alberta Branch) ..... Mr. W. Irwin
Canadian Manufacturers' Association ..... Mr. J.W. Hogan
Canadian Meteorological and Oceanographic Society (Alberta Centre) ..... Dr. L. Wojtiw
Canadian Nature Federation ..... Mr. D. Stiles

Canadian Parks and Wilderness Society
(CPAWS) (Edmonton Chapter) ..... Dr. G. Swinnerton
(Calgary/Banff Chapter) ..... Ms. B. Beswick
Canadian Petroleum Association ..... Mr. B. Worbets
Canadian Petroleum Association ..... Mr. J. Swiss
Canadian Society of Environmental Biologists
(Alberta Chapter) ..... Mr. D. MacIsaac
Canadian Union of Postal Workers,
Edmonton and Area Local ..... Ms. Carol Read
Christian Farmers Federation ..... Mr. A. Kolk
Citizens for Public Justice ..... Mr. W. Koning
City of Airdrie ..... Mr. R. Davidson
City of Calgary ..... Ms. J. Lewin
City of Camrose ..... Dr. M. Muc
City of Drumheller ..... Mr. R. Romanetz
City of Edmonton ..... Mrs. P. Wight
City of Fort McMurray ..... Alderman B. Gendreau
City of Fort Saskatchewan ..... Alderman N. Armstrong
City of Grande Prairie ..... Mr. E.G. Radbourne
City of Leduc ..... Alderman N. Hartfelder
City of Lethbridge ..... Alderman W.R. Cousins
City of Lloydminster ..... Alderman D. Arthur
City of Medicine Hat ..... Mr. J. Hirsch
City of Red Deer ..... Alderman G. Surkan
City of Wetaskiwin ..... Mr. N. Carlson
Coal Association of Canada ..... Mr. Phillip Lulman
Cold Lake Community Advisory Committee . Ms. A. Lacombe
College of Chiropractors of Alberta ..... Dr. R. Gehrke
Community Planning Association of Alberta . Ms. A. Parkinson
Consumers' Association of Canada ..... Mrs. E.S. Hunter
Consumers' Association of Canada ..... Mr. H. Weissenborn
Council of Alberta Rural Ratepayers'
Associations ..... Mrs. A. Hendry
County of Strathcona ..... Mr. K. Huzil
Dryland Salinity Control Association ..... Mr. W.M. Norris
Ducks Unlimited Canada ..... Mr. B. Calverley
Edmonton Chamber of Commerce ..... Mr. D. Mallon
Edmonton Local Council of Women ..... Ms. E.L. Butler
Electric Utility Planning Council ..... Mr. B. Peel
Energy Resources Conservation Board ..... Mr. H.O. Lillo
Entomological Society of Alberta ..... Mr. J.A. Shemanchuk
Federation of Alberta Naturalists ..... Mr. H. Gardner
Foothills Protective Association ..... Mr. C. Blackburn, Jr.
Fort Saskatchewan Regional Industrial
Association ..... Mr. H. Siebert
Health Unit Association of Alberta ..... Mr. H. Pharis
Heavy Crude Council ..... Mr. J. Aplin
Improvement District No. 16 ..... Mr. T. Blowers
Law Society of Alberta ..... Mr. D.R. Thomas
Lloydminster Chamber of Commerce ..... Mrs. J. Sloan
Save Tomorrow Oppose Pollution (STOP) ... Mr. B. Staszenski
Sierra Club of Alberta ..... Mrs. C. Ritchie
Society for the Protection of Architectural
Resources in Edmonton (SPARE) ..... Ms. W. Lee
Solar Energy Society (Calgary Chapter) .... Dr. J.E. Rapson
Southern Alberta Environmental Group .... Mr. G.R. Stewart
Strathcona Industrial Association ..... Mr. R.J. Gillespie
Sustainable Agriculture Association [The] .. Mr. J. Ostrowski
Swift Fox Conservation Society ..... Mr. C. Schroeder
Trout Unlimited Canada (Alberta Council) .. Dr. B. Dancik
Unifarm ..... Mrs. J. Walter
United Farmers of Alberta
Co-operative Ltd. ..... Mr. C. Fawcett
University Womens' Club of Edmonton
(Canadian Federation
of University Women) ..... Ms. L. Renouf
Urban Development Institute of Alberta .... Mr. F. Markson
Western Barley Growers' Association ..... Mr. H. Craig

Western Stock Growers' Association	Mr. E. Jarvis
Wildlife Society of Canada	Ms. R. Usher
Women of Unifarm	Mrs. T. Degenhardt
YWCA	Mrs. R. Robinson

Educational Institutions and Representatives

Athabasca University	Dr. R.G. Holmberg
Canadian Union College	Dr. P. Ramalingam
Cascade Society of Mount Royal College	Mr. G. Ferguson
Concordia College	Dr. S. Dalton
Grande Prairie Regional College	Dr. J. Snyder
Keyano College	Dr. T. Drouin
Lakeland College — Vermilion Campus	Dr. M.H. Chaudhry
Lethbridge Community College	Mr. P. Herzog
Medicine Hat College	Mr. B. Pavelich
Mount Royal College	Dr. K. Cummins
Mount Royal College Students' Association	Ms. C. Yan Hua
Northern Alberta Institute of Technology	Dr. F. Siddiqui
Olds College	Mr. R.A. Hill
Red Deer College	Mr. G. Fabris
Southern Alberta Institute of Technology	Mr. M. Homan
University of Alberta	Dr. D.J. Whitson
University of Alberta	Mr. M. Henderson
University of Calgary	Mr. W.A. Ross
University of Lethbridge	Dr. P. Lewis

Non-Sponsored Members

The current list of unaffiliated members follows:

Mrs. S. Abercrombie
Dr. L. Bakshi
Mr. K.J. Blom
Mrs. D. Broadbent
Dr. J. Cheng
Mr. K. Driver
Mr. A.C. Dunkley
Mr. W.A. Flook
Ms. J. Hedenstrom-Hayden
Dr. M. Kostuch
Mr. E. Kure
Mrs. E. Paschen
Dr. K. Pennifold
Mrs. M. Posey
Mr. R.M. Richardson
Mr. W.K. Ross
Dr. R. Scace
Mr. G. Stewart
Ms. R. Usher
Dr. J.C. Wood

Science Advisory Committee Members

Dr. C.F. Bentley
Dr. S. Dalton
Dr. W.A. Fuller
Dr. J. Godfrey
Ms. M. Haag
Dr. J. Hackler
Ms. L.P. Horstman
Dr. F. Kozar
Dr. D. Kvill
Dr. R.K. Lane
Dr. P. Mahaffy
Dr. R.P. Pharis
Dr. R. Swanson
Dr. D. Thompson
Dr. W.H. VandenBorn
Dr. T.S. Veeman
Dr. W. Wishart

Environmental Education Advisory Committee Members

Mr. E. Bailey
Mr. W. Batycky
Dr. A. Einsiedel, Jr.
Mrs. J. Finlay
Ms. M. Haag
Ms. L. Hart
Ms. J. Hayward
Mrs. A. Hendry
Mr. D. Merrills
Mr. B. Ogston
Ms. Beth Russell
Mr. B. Sliwkanich
Mr. H. Snyder
Mr. R. Sweet
Mr. I. Waugh
Mr. B. Wylie

Appendix B

RESPONSES TO 1988 RESOLUTIONS

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Alberta

ENVIRONMENT COUNCIL OF ALBERTA

MEMORANDUM

FROM: Archie G. Landals
Director, Liaison

DATE: February 6, 1989

TO: The Premier
Minister of Recreation and Parks
Minister of Forestry, Lands and Wildlife
Minister of Tourism
Minister of Environment
Minister of Municipal Affairs

Re: Attached Urgent Resolution

The attached urgent resolution was debated and endorsed by the Co-ordinating Committee of the Public Advisory Committees to the Environment Council of Alberta at their meeting on February 3, 1989.

Normally resolutions are debated and voted on at the Annual Joint Meeting of the Public Advisory Committees and the Environment Council in December of each year.

Urgent resolutions are forwarded when, in the opinion of the Co-ordinating Committee, the Government should be made aware of a public concern as soon as possible. These urgent resolutions are debated at the following Annual Joint Meeting and, if endorsed by the membership, are confirmed as P.A.C. resolutions acceptable to the full membership.

The Co-ordinating Committee considered it a matter of urgency that the Government develop a strategy to ensure the sustainability of all resources in Northern Alberta. They further urge that the Government solicite broad public input as a basis for the development of such a strategy.

The Co-ordinating Committee also requested that the attached letter from Dr. Joan Snyder, Chairperson for the Steering Committee for the Alberta Conservation Strategy be included for your consideration.

Archie G. Landals
Director, Liaison

cc: Dr. Lochan Bakshi, Chairman, PAC

att: urgent resolution
letter from Dr. Snyder

AGL/pam

EMERGENCY RESOLUTION

I. New Forestry Hearings Required

II. Be It Resolved:

That comprehensive public hearings be conducted by the Environment Council of Alberta on the management of Alberta's northern forests. These hearings should take place as soon as possible.

III. Background:

Given the recent commitment of much of Northern Alberta to long term timber management, it is a matter of urgency to develop a strategy for the sustainable use of all resources in these areas. Since the 1979 Forestry Hearings, there have been numerous changes in forest utilization technology, as well as an increased importance of tourism recreation and other resources. Simultaneously, there have been major changes in public attitudes toward the environment.

Public Hearings are the most effective means of determining public attitudes and commitments towards resources. At the same time, public hearings are one of the most effective means of general public education.

We urge the Alberta Government to announce public hearings as a formal statement of their commitment to the sustainable development in Alberta.

IV. To Be Directed To:

Premier
Minister of Environment
Minister of Forestry, Lands and Wildlife
Minister of Tourism
Minister of Recreation and Parks
Minister of Municipal Affairs

V. Proposed by:

The Environment Protection Sub-Committee

ALBERTA
CONSERVATION
STRATEGY

February 6, 1989

Hon. Dr. Ian Reid
Minister of Environment
420 Legislature Building
EDMONTON, Alberta

Dear Dr. Reid:

The Steering Committee for the Alberta Conservation Strategy would like to point out that public hearings on the Alberta Conservation Strategy, which continues to be our priority, would permit these forest management issues to be addressed more effectively in the broader context of province-wide development and management. However, it if is not your intention to call these hearings in the immediate future, the more limited hearings asked for in the resolution approach on February 3, 1989 by the Co-ordinating Committee would resolve an urgent problem in the interim.

Yours sincerely,

Dr. Joan Snyder
Vice-Chair, Co-ordinating Committee
Chair, Steering Committee

JS:mh

PUBLIC ADVISORY COMMITTEES
TO THE
ENVIRONMENT COUNCIL OF ALBERTA

8th Floor Weber Centre • 5555 Calgary Trail Southbound NW Edmonton Alberta Canada • T6H 5P9 • (403) 427-5792

FORESTRY, LANDS and WILDLIFE

Office of the Minister

403 Legislature Building, Edmonton, Alberta, Canada T5K 2B6 403/427-3674

MAR 07 1989

RECEIVED
MAR 0 7 1989
ENVIR...

Mr. Archie G. Landals
Director, Liaison
Environment Council of Alberta
8th Floor, Weber Center
5555 Calgary Trail Southbound, NW
Edmonton, Alberta
T6H 5P9

Dear Mr. Landals:

Thank you for your recent letter regarding the E.C.A. resolution for new forestry hearings.

This matter has been given serious consideration by the Government of Alberta. Environmental concerns associated with forestry developments are and will continue to be treated very seriously. The main reason my Department has scheduled a series of open houses and public meetings in various locations throughout the Province is to ensure that the public is aware of the forest management programs being proposed in relation to the new developments and has an opportunity to comment on them. The project proponents are holding information sessions as well.

You may by now have heard that I recently announced that an independent panel of advisors will be convened to consider all of the public concerns that are identified at the open houses and public meetings. The panel will be comprised of representatives from the University of Alberta, Alberta Fish and Game Association, Forestry Canada and the Alberta Forest Products Association. In order to ensure that all concerns brought forward at the meetings are fully reported to the panel, I have employed Concord Scientific Corp. of Calgary to attend all of the meetings and file an independent report to the panel. The panel will evaluate the government's response to these concerns. The panel will produce a final report, which will be made public.

... /2

I am confident that this approach will provide an avenue for public concerns to be heard and addressed.

Yours truly,

MARVIN MOORE, ACTING MINISTER

LeRoy Fjordbotten
MINISTER OF FORESTRY,
LANDS AND WILDLIFE

cc. Honourable D. Getty
Honourable N. Weiss
Honourable D. Sparrow
Honourable I. Reid
Honourable D. Anderson

ENVIRONMENT

130 Legislature Building, Edmonton, Alberta, Canada T5K 2B6 403/427-2391 Fax 403/422-6259

Office of the Minister

AUG 31 1989

ENVIRONMENTAL COUNCIL OF ALBERTA

August 31, 1989

Mr. A.G. Landals
Director, Liaison
Environment Council of Alberta
8th floor, Weber Centre
5555 Calgary Trail
EDMONTON, AB
T6H 5P9

Dear Mr. Landals:

I am pleased to provide the Government's response to the five resolutions endorsed at the 18th Annual Joint Meeting on the Environment Council of Alberta and its Public Advisory Committees.

Thank you for keeping us informed on the work of the Council.

Sincerely yours,

RALPH P. KLEIN
Minister

Attachment

cc: All Government M.L.A.'s

Resolution 1 — Canadian Heritage Rivers Program

Be It Resolved:

That the Government of Alberta agree to become a fully participating partner in the federal-provincial co-operative conservation program: the Canadian Heritage Rivers System (CHRS).

Response:

The protection and wise use of Alberta's rivers is a government priority. Alberta has been monitoring the implementation process of the Canadian Heritage Rivers Program in other provinces. We recognize that many Albertans have expressed an interest in the Program or support Alberta's participation. We are, therefore, reviewing the government's position. Alberta Environment has raised the issue with the Alberta Water Resources Commission. We anticipate that the Commission, in its role of advising on water management policies for the province, will provide an assessment for consideration by the government.

Resolution 2 — Environment Watch

Be It Resolved:

That Alberta Environment initiate an "Environment Watch" program.

Response:

The concept of an "Environment Watch" program that would encourage all Albertans to assist the Department in environmental enforcement is potentially a good one, and will be considered in next year's budget process.

There is currently an Environmental Emergency/Complaint Line in use by Alberta Environment. Through this system, citizens can call a toll free number (1-800-222-6514) if they have a complaint or observe an illegal act. This number is manned on a 24-hour basis. During the day, all calls are directed to the Pollution Control Division and after hours to a member of the Pollution Emergency Response Team (PERT). All incoming calls are logged and appropriate action taken. The toll free number is advertised on the inside cover of every telephone directory in the province.

In addition to this, the HELP (Help End Landfill Pollution) and "Outdoor Observer" programs provide citizens with the opportunity to contribute to environmental protection. Both have had excellent results.

During office hours, the government RITE System may be used to call toll free from other areas of the province to Alberta Health and other departments. The Energy Resources Conservation Board also operates a 24-hour response system from their area offices.

Resolution 3 — The Greenhouse Effect

Be It Resolved:

That the Government of Alberta establish a goal to reduce CO_2 emissions in Alberta by at least 20 percent of 1988 levels by the year 2005.

Response:

The Provincial and Federal governments are concerned about the greenhouse effect/climate change issue. In 1981, Alberta participated in the Climate Change Seminar sponsored by the Canadian Council of Ministers of the Environment (CCME).

In co-operation with other agencies such as the Energy Resources Conservation Board, Alberta Environment has been studying the effect of greenhouse gas emissions. Alberta Energy has for some time advocated energy conservation and increased efficiency of energy use which serve to reduce CO_2 emissions. A major reduction in CO_2 emissions has also resulted from more effective forest fire control.

In August of 1988, the Council of Canadian Energy Ministers established a Task Force on Energy and the Environment whose objectives are:

1) to review the energy recommendations arising from the Changing Environment conference, and particularly the recommendation that countries like Canada reduce carbon dioxide (CO_2) emissions by 20 percent of 1988 levels by the year 2005;
2) to assess the implications of these recommendations for Canada;
3) to assess the costs and benefits of options available for responding to the recommendations;
4) to examine the consequences of these options for energy policy and planning; and
5) to make recommendations for action by governments.

Alberta is actively participating on the Task Force. We believe that as the problem is global it must be addressed by the Federal and Provincial government working together. While one cannot prejudge the results of the Task Force Review, we believe it will result in constructive suggestions which will contribute to the reduction of greenhouse gas emissions, including CO_2, as your resolution suggests.

Resolution 4 — Response To Public Hearings on Noise in Alberta

Be It Resolved:

That the Government of Alberta provide a formal response to the Environment Council of Alberta's Report and Recommendations on Noise submitted in July, 1982.

Response:

The 1982 ECA Report and Recommendations on Noise have been widely circulated. Albertans have been made aware of the hazards of noise pollution and are provided information and the skills necessary to make healthy choices and avoid harmful or hazardous situations. Noise is frequently a local situation and, in these cases, is most effectively managed by local authorities or by specific regulation.

Progress has been made on the issue of noise in the environment. Most recent is the endorsement by the Conference of Deputy Ministers of Health of the National Guidelines for Environmental Noise Control, prepared by Health and Welfare Canada. This endorsement ensures the national guidelines will be available for general distribution. These guidelines contain many of the recommendations made by the Environment Council of Alberta.

Resolution 5 — Recycling of Waste

Be It Resolved:

That the Premier of Alberta proclaim, as official Government policy, that the management of waste in all Alberta municipalities be based on maximum recovery and recycling of waste materials, and that all Government departments and agencies be required to give full co-operation to the implementation of this policy.

Response:

Major efforts are underway to improve the management of waste in Alberta. Progress has been made through waste reduction, reuse, recycling and recovery. Local initiative has been encouraged and research into recycling supported. The initial steps toward the concept of "maximum recovery" have been taken, but considerable work remains to be done. The Canadian Council of Ministers of the Environment has been actively working on a Municipal Waste Action Plan.

Alberta Environment has adopted a comprehensive strategy for managing wastes in Alberta. This strategy includes waste reduction, reuse, recycling and recovery as ways to protect the environment and conserve resources. Currently, plans call for reduction of hazardous wastes through information and educational programs, performance-based standards and emphasis on recyclable materials. The Department is currently preparing specific policies that will address the role of recycling.

Alberta has taken a lead role in establishing recycling programs in the province. The Resource Recovery Grant Program, administered by Alberta Environment, was established in 1976 to facilitate the development of recycling projects that will service the public where service is not provided by private enterprise. To the end of the 1988-89 fiscal year, approximately 150 recycling projects have been initiated. Since 1976, the budget from this program has increased from $30,000 to the current $686,000 per year. The Beverage Container Act is highly successful and recovers an estimated 80 percent of the containers covered by this legislation. Alberta Environment has also participated in the City of Edmonton's curbside recycling program, which will result in an estimated 11 percent reduction in the residential waste stream.

Alberta supports a number of important recycling and waste management programs conducted by the private sector. These include the Alberta Waste Materials Exchange, an office paper recycling program conducted by Paperchase, and a large anti-littering program co-ordinated by Outdoors Unlittered.

With the assistance of the above programs, Alberta Environment and other government departments, encourage new waste management strategies in municipalities throughout the province.

APPENDIX C

LOG OF NEWS RELEASES

February 14, 1989 — Environmental Educators Say Caribou Survival Helps People Too

Although for many Albertans the connection is obscure, by learning how to save our mountain caribou from extinction we can learn to improve our own prospects for environmental and economic health. For this reason, environmentalists think a real partnership exists between Albertans and these rare animals, and they feel more people need to become aware of that reality for the benefit of both partners. So now, a team of environmental educators will produce a new video about that partnership, based on the current and planned work of the Greater Jasper Ecosystem Caribou Research Project. "Saving those remnant populations is going to be like a test case for a conservation strategy," says Dr. Joan Snyder, a Grande Prairie Community College professor who chairs the Steering Committee for an Alberta Conservation Stratgegy.

May 11, 1989 — Alberta's Heritage: The Past is Prologue

As Albertans make their summer plans, there are indications a growing number consider visits to points of historical interest within the province will be among the important highlights of their coming vacations.

According to *Dinosaurs and Distant Drums*, a discussion paper prepared for the Alberta Conservation Strategy (ACS), visitors to historic sites in Alberta have tripled in the past five years.

Dr. Joan Snyder, who chairs the Conservation Strategy's Steering Committee says "the impression we're getting is that people today want to seek out and preserve knowledge acquired by their first generation ancestors."

"Since the early 1980s, the public, business interest and politicians have begun to realize the strong economic benefits of historical resources, mainly through tourism," Snyder points out. Accordingly, a conservation strategy is like a blueprint for environmentally-sustainable economic development, an approach well-suited to tourism.

May 18, 1989 — Alberta Farmlands: Planning For The Long Term

Agriculture is a costly business and Albertans will need to act with care if they want agricultural resources to remain productive and viable for the future.

That's the central message of *Agricultural Considerations For Today And Tomorrow*, another in a series of discussion papers prepared for the Alberta Conservation Strategy. In it, energy-related expenditures are viewed as among the most important cost components in agriculture today.

"Energy use in agriculture must be looked at very carefully because of cost and the very real question of sustainability," says Dr. Joan Snyder, who chairs the Steering Committee for the Conservation Strategy. "As an example," she says, "recent figures show that the amount of energy required to produce a tonne of grain has more than doubled in the last 35 years."

May 25, 1989 — Alberta's Renewable Energy: A Look At The Future

Albertans shouldn't be concerned about future energy needs, according to *Renewable Energy: The Power And The Potential*, another in a series of discussion papers prepared for the Alberta Conservation Strategy (ACS), and published by the Environment Council of Alberta. However, our renewable energy options need to be carefully studied, in the light of future energy requirements.

For years, Alberta has been known as the "energy province," rich in oil, gas, and coal. And even though the supply of these non-renewable fossil fuels won't last forever, Alberta's potential for supplying energy still looks good.

As the discussion paper shows, Alberta has huge potential for renewable energy sources. "The provincial government should seriously consider renewable energy as a viable alternative to today's fossil fuels," says Dr. Joan Snyder, who chairs the ACS Steering Committee.

The major renewable sources are solar, wind, geothermal, biomass, wood and energy from waste. Some areas of the province receive the highest levels of solar radiation in the country while other parts of Alberta are recording wind speeds high enough to efficiently operate wind turbines. In other areas, biomass plantations may serve as energy alternatives. As well, there are places suitable for tapping geothermal energy sources in Alberta and agricultural products or wastes provide large quantities of biomass suitable for the production of alcohol fuels.

June 2, 1989 — Energy Conservation Could Mean Big Savings For Albertans!

People in Alberta can help save their environment, and a great deal of money, by being more energy conscious.

That's the central theme of *Energy Conservation: A Goal For Albertans*, another in a series of discussion papers prepared for the Alberta Conservation Strategy (ACS), and published by the Environment Council of Alberta. The paper was prepared with the co-operation of the Energy Conservation Branch of Alberta Department of Energy.

"If everyone co-operates, yearly savings could exceed 700 million dollars," says Don Wharton, Director of Public Information for Alberta's Energy Conservation Branch. "Co-operation doesn't mean freezing in the dark or locking the car in the garage on weekends, but," he says, "there are a number of things the general public, business and industry can do to become energy efficient."

As an example, most of our domestic power is swallowed up by major appliances; refrigerators, stoves, dishwashers, hot water heaters, and so on. When replacement time comes, one should look for units displaying the energuide seal. According to the discussion paper, some of today's appliances consume much less electricity than previous models. "As a matter of interest," Wharton says, "proposed national standards could reduce electricity used by refrigerators alone by almost 40 percent."

June 8, 1989 — Taking Care of the Environment: A Compromise Approach

Hewitt Oil, winner of the 1989 Alberta Environment Award in the industrial category, provided the example for a compromise approach to environmental protection, which is the central theme of *Resolving Conflict: A Case Study*, another in a series of discussion papers prepared for the Alberta Conservation Strategy (ACS).

The paper focuses on alternative conflict resolution, "an innovative method for dealing with confrontational environmental issues" says John Lilley, Senior Research Officer for the Environment Council of Alberta (ECA), and author of the report. He says, "the alternative approach is producing results which are most encouraging."

June 22, 1989 — Alberta's Urban Communities: Preparing For The Future

Alberta's urban areas should always be healthy, enjoyable places to live. And, according to *Environment By Design: The Urban Place In Alberta*, another in a series of discussion papers prepared for the Alberta Conservation Strategy (ACS), those urban places which fail to adapt to change risk perishing.

The discussion paper reflects a prime objective of the Strategy, which is to maintain and improve the quality of life in our urban environment, where the majority of Albertans now live and work. The paper was prepared by the Urban Environment Sub-Committee of the Environment Council of Alberta's Public Advisory Committees.

"For an urban area to be sustainable, it must be a community where people want and choose to live, where they have opportunities both to benefit from and contribute to the viability of their district," says Bill Flook, the representative of the Urban Environment Sub-Committee to the Conservation Strategy project.

December 15, 1989 — Environmental Tips For Christmas

Whether we view Christmas primarily as spiritual, or as a secular event, or some combination of both, it can be a time for increasing our environmental awareness, suggests the Environment Council of Alberta. And in response to requests from the public, the Council has just published a list of tips on a few things we can do for the environment when we celebrate Christmas, a list that's now available free on request. During the last 18 months, the Environment Council has received a steady stream of calls from citizens wanting more information on what they as individuals can do for the environment. In reply, the Council now publishes "action lists" based on the general theme of "What I Can Do For The Environment" filled with environmentally-sound actions for people on subjects ranging from air pollution to energy conservation, and from health promotion to environmentally-friendly shopping.

APPENDIX D

LIST OF PUBLICATIONS

December 1989

"WHAT I CAN DO FOR THE ENVIRONMENT" Action List Subject Areas

Air Pollution
Energy
Environment-Friendly Products
Gardening
Health Promotion
Indoor Air Pollution
Outdoor Recreation
Parks/Reserves
Recycling
Water Conservation
Water Pollution
Wildlife

BROCHURES

Environment Council of Alberta. July 1983.
Public Hearings.

LEGISLATION

The Environment Council Act. Chapter E-13, R.S.A. 1980.

ANNUAL REPORTS

Environment Council Annual Report, 1982.
Environment Council Annual Report, 1983.
Environment Council Annual Report, 1984.
Environment Council Annual Report, 1985.
Environment Council Annual Report, 1986.
Environment Council Annual Report, 1987.
Environment Council Annual Report, 1988.

PUBLICATIONS RELATED TO PUBLIC HEARINGS

Erosion of Land in Northwestern Alberta.

Report and Recommendations. November 1976.

Continued Public Hearings into the Flow Regulation of the Red Deer River.

Report and Recommendations. June 1977.

Management of Water Resources within the Oldman River Basin.

Terms of Reference and Background Information. September 1978.

The Management and Disposal of Hazardous Waste.

Report and Recommendations. December 1980.

Noise in Alberta.

Noise: Transportation Noise. (Brochure) September 1980.
Noise: Planning Considerations. (Brochure) September 1980.
Noise in the Workplace. January 1981.
Economic Aspects of Noise in Alberta. September 1980.
Report and Recommendations. July 1982.

Maintaining and Expanding the Agricultural Land Base in Alberta.

Factors Affecting Summerfallow Acreage in Alberta. August 1981.
Factors Affecting Summerfallow Acreage in Alberta: Summary. August 1981.
The Agricultural Land Base in Alberta. August 1981.
The Agricultural Land Base in Alberta: Summary. November 1981.

Agricultural Land and Land Use Planning in Alberta: A Review of Planning Legislation and Practices. October 1981.

Agricultural Land and Land Use Planning in Alberta: Summary and Issues. November 1981.

Agriculture and the Environment. November 1981.

Agriculture and the Environment: Summary. March 1982.

Urbanization of Agricultural Land. December 1981.

Urbanization of Agricultural Land: Summary. December 1981.

Rural Subdivision in the Edmonton, Battle River, Red Deer, and Calgary Regional Planning Commissions, 1977 to 1979. February 1982.

Irrigation Agriculture in Alberta. March 1982.

Irrigation Agriculture in Alberta: Summary. March 1982.

Dryland Salinity in Alberta. March 1982.

Options for Protecting Agricultural Land. April 1982.

The Economics of Agriculture in Alberta: Selected Issues. July 1982.

A Summary of The Economics of Agriculture in Alberta: Selected Issues. July 1982.

Soil Fertility, Land Productivity and Dryland Salinity in Alberta: Summary. September 1982.

Agriculture and Public Land Management in Alberta. August 1982.

Greenhouse Production in Alberta. September 1982.

Maintaining and Expanding the Agricultural Land Base in Alberta: Terms of Reference and Background Information. July 1982.

The Impacts of Linear Developments, Resource Extraction, and Industry on the Agricultural Land Base. October 1982.

The Impacts of Linear Developments, Resource Extraction, and Industry on the Agricultural Land Base: Summary. October 1982.

Recreation on Agricultural Land in Alberta. November 1982.

Recreation on Agricultural Land in Alberta: Summary. November 1982.

Research and Agricultural Productivity in Alberta. September 1982.

An Analysis of Agricultural Research and Productivity in Alberta. January 1983.

Agricultural Land Protection Mechanisms in Canada. March 1983.

Summary Report and Recommendations. December 1984.

Technical Report and Recommendations. March 1985.

Recycling of Waste in Alberta.

The Use of Municipal Waste as Fuel. March 1983.

Resource Recycling in Alberta. November 1985.

Economic Barriers to Recycling. November 1985.

Municipal Solid Waste — Alberta's Untapped Resource? November 1985.

Garbage to Gold? Issues and Opportunities. December 1985.

A Social Perspective of Recycling. January 1986.

Bibliography of Recycling. February 1986.

Technical Report and Recommendations. March 1987.

Summary Report and Recommendations. April 1987.

SPECIAL REPORTS

Review of Interaction Between Migratory Birds and Athabasca Oil Sands Tailings Ponds. September 1975.

Noise and the Human Environment. Volume 1, December 1979.

Risks Associated with the Transportation to Treatment of Hazardous Waste Substances. Phase I. (Volume 1/2); *Phase II.* (Volume 2/2). December 1980.

Public Perceptions of the Environment in Alberta. January 1981.

Environmental Standards: A Comparative Study of Canadian Standards, Standard Setting Processes and Enforcement. September 1983.

Report of the National Task Force on Environment and Economy. September 1987.

Progress Report of the National Task Force on Environment and Economy. October 1988.

STAFF REPORTS

Health Effects from Kraft (Sulphate) Pulp Mill Operations. September 1976.

The Camrose-Ryley Project Proposal (1975). A Preliminary Assessment of the Surface Reclamation Potential on the Dodds-Roundhill Coalfield. April 1977.

Attitudes Toward the Environment: A Comparison of Six Surveys Spanning Six Years. February 1982.

Wildlife Roadkills and Potential Mitigation in Alberta. February 1983.

Acid-Forming Emissions — Transportation and Effects. March 1984.

Alberta's Clean Air Act. March 1985.
Alberta's Clean Water Act. March 1985.

OCCASIONAL PAPERS

What is a Conservation Strategy? September 1986.
Environment and Development: An NGO Viewpoint. March 1986.
Improving Enforcement of The Clean Air Act and The Clean Water Act. September 1987.
The Environment and the Economy: Reconciling the Conflicts. February 1988.

CONFERENCES AND MEETINGS

Involvement and Environment: Proceedings of the Canadian Conference on Public Participation. Volume 1. September 1978; Volume 2. May 1979.
Public Participation in Environmental Decision Making: Strategies for Change. 1979.
Proceedings 10th Annual Joint Meeting of the Canadian Environmental Advisory Council. September 1986.
Forest Land Use Workshop. June 1987.

PUBLIC ADVISORY COMMITTEE ON THE ENVIRONMENT

Public Advisory Committees to the Environment Council of Alberta. (Brochure) December 1982.
Roles Document: Public Advisory Committee on the Environment. September 1978.
Proceedings of the 1982 Annual Joint Meeting.
1984 Proceedings.
1984 Chairmen's Reports.
1984 Resolutions.
1985 Proceedings.
1985 Chairmen's Reports.
1985 Resolutions.
Need-to-Know: Effective Communication for Environment Groups. Proceedings of the 1987 Annual Joint Meeting.
Prospectus for an Alberta Conservation Strategy. (Revised) March 1987.
Reserves for Nature. November 1987.
Resolving Conflict: A Case Study. February 1988.
Environment By Design: The Urban Place in Alberta. February 1988.
Tourism in Alberta. May 1988.
Energy Conservation: A Goal for Albertans? May 1988.
Agricultural Considerations for Today and Tomorrow. June 1988.
Renewable Energy: The Power and The Potential. August 1988.
Dinosaurs and Distant Drums. November 1988.
Foundations for the Future: Alberta's Mineral Resources. April 1989.
EE2000: Environmental Education for a Sustainable Future. August 1989.
Oil and Gas in Alberta: An Uncertain Future. October 1989.
A Place for Wildlife. November 1989.
Healthy Planet, Healthy People. November 1989.

SCIENCE ADVISORY COMMITTEE

Trace Elements in Coal: A Review. March 1981.

APPENDIX E

LOCATION OF INFORMATION CENTRES

Banff

The Banff Centre
Box 1020
Banff, Alberta
T0L 0C0

Blairmore

Blairmore Municipal Library
Blairmore, Alberta
T0K 0E0

Bonnyville

Bonnyville Municipal Library
Box 1438
Bonnyville, Alberta
T0A 0L0

Brooks

Brooks Public Library *
Box 1149
Brooks, Alberta
T0J 0J0

Calgary

Calgary Public Library *
Business and Science
616 Macleod Trail SE
Calgary, Alberta
T2G 2M2

Calgary Regional Planning Commission
4303 - 11 Street SE
Calgary, Alberta
T2G 4X1

Collection Room *
Dept. of Geography
University of Calgary
2920 - 24 Avenue NW
Calgary, Alberta
T2N 1N4

Environmental Design Unit *
8th Floor, Library Tower
University of Calgary
2920 - 24 Avenue NW
Calgary, Alberta
T2N 1N4

The Library *
Mount Royal College
4825 Richard Road SW
Calgary, Alberta
T3E 6K6

Resource Centre Office
Faculty of Evironmental Design
Room 1003A
Earth Science Building
University of Calgary
2920 - 24 Avenue NW
Calgary, Alberta
T2N 1N4

Camrose

Camrose Public Library
4863 - 50 Street
Camrose, Alberta
T4V 0P6

Canmore

Canmore Public Library
Box 460
Canmore, Alberta
T0L 0M0

Carstairs

Carstairs Library
Box 128
Carstairs, Alberta
T0M 0N0

Coronation

Coronation Community Library
Coronation School
Coronation, Alberta
T0K 1C0

Drumheller

Drumheller Public Library *
Box 1599
Drumheller, Alberta
T0J 0Y0

Edmonton

Alberta Environment Library *
14th Floor, Oxbridge Place
9820 - 106 Street
Edmonton, Alberta
T5K 2J6

Alberta Legislature Library
Room 216
Legislature Building
Edmonton, Alberta
T5K 2B6

Edmonton Regional Planning Commission Library
602, 10025 - 106 Street
Edmonton, Alberta
T5J 1G6

Government Publications *
University of Alberta Library
Edmonton, Alberta
T6G 2J8

Edson

Edson Public Library
Box 249
Edson, Alberta
T0E 0P0

Fort McMurray

Fort McMurray Public Library

* Has a complete set of proceedings of public hearings.

9912A Franklin Avenue
Fort McMurray, Alberta
T9H 2K6

Grande Prairie

Grande Prairie Public Library
10032 - 100 Avenue
Grande Prairie, Alberta
T8V 0V3

Grande Prairie Regional College Library *
10726 - 106 Avenue
Grande Prairie, Alberta
T8V 4C4

South Peace Regional Planning Commission *
Resource Centre
200 Windsor Court
9835 - 101 Avenue
Grande Prairie, Alberta
T8V 0X6

Hinton

Hinton Municipal Library
Box 818
Hinton, Alberta
T0E 1B0

Lacombe

Parkland Regional Library
Alberta Agriculture Building
Lacombe, Alberta
T0C 1S0

Lacombe Public Library
Lacombe, Alberta
T0C 1S0

Lethbridge

Buchanan Resource Centre *
Lethbridge Community College
Lethbridge, Alberta
T1K 1L6

Government Documents Office
University of Lethbridge Library
Lethbridge, Alberta
T1K 3M4

Lethbridge Public Library *
810 - 5th Avenue S
Lethbridge, Alberta
T1J 4C4

Library
Oldman River Regional Planning Commission
905 - 4th Avenue S
Lethbridge, Alberta
T1J 4E4

Olds

Olds Municipal Library
Box 968
Olds, Alberta
T0M 1P0

Peace River

Peace River Municipal Library
9807 - 97 Avenue
Peace River, Alberta
T0H 2X0

Red Deer

Red Deer Public Library *
4818 - 49 Street
Red Deer, Alberta
T4N 1T9

Red Deer Regional Planning Commission Library *
2830 Bremner Avenue
Red Deer, Alberta
T4R 1M9

Reader's Service Librarian
Red Deer College Library
56 Avenue & 32 Street
Red Deer, Alberta

Sherwood Park

County of Strathcona Municipal Library
Government Documents Section
2001 Sherwood Drive
Sherwood Park, Alberta
T8A 3J4

Spruce Grove

Spruce Grove Public Library
Box 2759
Spruce Grove, Alberta
T0E 2C0

Vegreville

Vegreville Public Library
Box 129
Vegreville, Alberta
T0B 4L0

Vermilion

Lakeland College Library *
Vermilion, Alberta
T0B 4M0

Vermilion Public Library
Box 476
Vermilion, Alberta
T0B 4M0

Westlock

Westlock Municipal Library
Box 1198
Westlock, Alberta
T0G 2L0

Wetaskiwin

Battle River Regional Planning Commission Library *
5014 - 48 Avenue
Wetaskiwin, Alberta
T9A 0M9

Whitecourt

Whitecourt Public Library *
Box 150
Whitecourt, Alberta
T0E 2L0

* Has a complete set of proceedings of public hearings.